

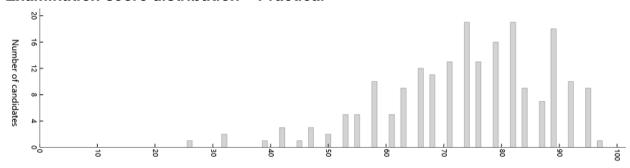


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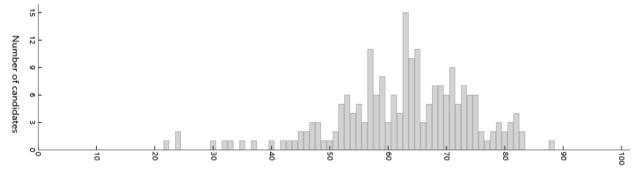
# Summary report of the 2017 ATAR course examination: Materials Design and Technology

Year	Number who sat all examination components	Number of absentees from all examination components
2017	200	0
2016	213	2

## Examination score distribution - Practical



# Examination score distribution - Written



# Summary

The overall presentation of the candidates' practical (portfolio) submissions and the standard of content has improved in 2017. There has been a clear increase in the number of candidates covering all the criteria, with very few 'no attempts' recorded compared to previous years.

The written examination paper was well balanced with a good range of scaffolded questions and more challenging questions. Some of the more challenging syllabus points and questions seemed to catch the candidates off guard. The addition of these more complex questions allowed for discrimination between candidates. Candidates also appeared to think there was another way to interpret questions; however, this indicated that they misunderstood the syllabus or misread the questions.

## General comments

# **Practical examination**

Attempted by 200 candidates Mean 74.04% Max 97.37% Min 26.32%

Section means were:

Practical portfolio (Metal) Mean 69.81%

Attempted by 19 candidates Mean 69.81(/100) Max 89.47 Min 47.37

Practical portfolio (Textiles)	Mean 80.63%	
Attempted by 69 candidates	Mean 80.63(/100) Max 97.37	Min 60.53
Practical portfolio (Wood)	Mean 70.7%	
Attempted by 112 candidates	Mean 70.70(/100) Max 94.74	Min 26.32

Further improvements in the level of detail given in the practical (portfolio) submissions should be done in future years. Candidates must include annotations of concept ideas and drawings. They must justify their research topics, design feature choices and their final design choices and relate everything back to the needs of the client expressed in the design brief from the client.

Written examination Attempted by 200 candidates	Mean 62.79%	Max 88.07%	Min 22.21%
Section means were:			
Section One: Short answer	Mean 10.30%		
Attempted by 200 candidates	Mean 10.30(/15)	Max 15.00	Min 2.14
Section Two: Extended answer	Mean 17.98%		
Attempted by 200 candidates	Mean 17.98(/25)	Max 23.39	Min 8.87
Section Three: Wood	Mean 35.56%		
Attempted by 112 candidates	Mean 35.56(/60)	Max 50.49	Min 8.78
Section Three: Metal	Mean 35.97%		
Attempted by 19 candidates	Mean 35.97(/60)	Max 51.22	Min 19.76
Section Three: Textiles	Mean 32.41%		
Attempted by 69 candidates	Mean 32.41(/60)	Max 49.02	Min 11.71

The majority of candidates coped well with Sections One and Two. Answers in these sections show a strong understanding of the common content which is a huge improvement on previous years. A small group of candidates are still unsure of the design fundamentals and the elements and principles of design. Section Three was considered to be equitable across the contexts and most candidates did well in the more practical styled questions that were included in this section in 2017. The costing question across all contexts, although more closely aligned in terms of level of difficulty within the contexts, did appear to test the ability of some candidates.

# Practical examination

Advice for candidates

- Do not restrict reference in the statement of intent with only a discussion of choices of materials and finishes – cover all the design fundamentals in your statement of intent.
- The use of coloured/patterned backgrounds is not allowed refer to the practical (portfolio) requirements document.
- Ensure all research work has justifications for choices made.
- Show more detail in your concept development, ensure work is outlined and/or coloured as pencil sketches can be messy and difficult to read.
- Refer to the design fundamentals and the client's wants and needs in your design work and research.
- Show clear development from your initial designs to your solution and make reference to what the client thinks if appropriate.
- Ensure working drawings are detailed and show all main parts, sizes and joining methods.
- Ensure production plans/journals are easy to follow use a template that fits on individual pages to ensure consistency.
- Keep an accurate record of your production process and label changes made clearly.

• When completing your evaluation, ensure you make reference to the statement of intent and design fundamentals.

#### Advice for teachers

- Ensure students pick projects that are going to give them an opportunity of producing a comprehensive practical (portfolio).
- Check that students are not restricting themselves to material choices in the statement of intent – they should be covering all design fundamentals as well.
- Avoid using plus, minus and interesting (PMI) methods in research students who use
  this technique often fail to include any of the design fundamentals in their research.
- Ensure students finish their research by showing that they understand what they have researched through justifying the choices made.
- Give students sketching technique practise and ensure that they show the stages of progression (initial concepts, concept development and solution drawing) clearly through their designs.
- Ensure students are using annotations throughout their design development that demonstrates that they understand why materials chosen are being used.
- Students must keep an accurate work journal during the production of their projects.
- Submit practical (portfolios) in the correct format and not on coloured paper.
- Include a second USB as a back-up in the submission.

#### Written examination

#### Advice for candidates

- Read all questions carefully.
- Re-read answers and questions to check if you have not misinterpreted the requirements.
- Re-do calculations if there are any ideally check them once they have been completed, then at the end of the examination if there is time.
- Use examples to support and justify statements.
- Repeating the question in your answer is not good practice as this often leads to unnecessary information being included in your answers.
- Create subheadings to answer essay questions.
- Highlight or underline keywords in the questions to focus your attention on what is being asked.
- Create dot points to answer the question under each subheading, or highlight key points which will help you to avoid repeating information.

#### Advice for teachers

- Ensure students know how to lay out answers and promote the use of highlighters to identify keywords in questions.
- Encourage students to use the reading time allocated to ensure they understand the requirements of the questions.
- Stress to students that they should write as neatly as possible when answering questions.
- Encourage students to use the back pages of the question/answer booklet for note taking or breaking down a question.
- Cover all syllabus points of both units during the year.

# Comments on specific sections and questions

# Practical portfolio (Metal) (38 Marks)

The statement of intent is being completed to a high standard with most candidates covering all of the design fundamentals and client's wants and needs. Research is still a weak point with candidates using internet information that lacks detail and justification. Candidates need to remember that they need to justify their choices. Some candidates are not achieving over three marks for the 'concept' because no development is shown or only two or three isolated sketches are made before they produce their solution. Many candidates did not show clear concept development in their sketches.

Candidates need to ensure that clear development is shown and that it relates to the client's wants and needs. Production planning was well done with some candidates receiving less marks because they have not included all costings or not being detailed in their planning. Candidates need to ensure that they include more detail and revised plans. Most candidates completed the statement of intent well and found the evaluation easy because they were able to reference back to it.

## Practical portfolio (Textiles) (38 Marks)

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# Practical portfolio (Wood) (38 Marks)

There was an improvement in the quality of these practical (portfolio) examination submissions this year, with most candidates submitting work to cover all criteria. The statement of intent is being completed to a high standard by most; however, there are still some candidates that only name materials, features etc. which leads to research not being completed well. Research is still a weak point with candidates using internet information that lacks detail and justification. Candidates need to remember that they need to justify their choices. Some candidates are not achieving over three marks for the 'concept' because no development is shown or only two or three isolated sketches are made before they produce their solution. Many candidates did not show clear concept development in their sketches.

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#### Written examination

## **Section One: Short answer (21 Marks)**

Overall candidates scored well in this section but could have done better with Question 2. Answers were either vague or not fully explained which resulted in less marks.

# **Section Two: Extended answer (31 Marks)**

Candidates demonstrated a very good understanding of the design fundamentals and the elements of design. There are still a small number of candidates who are unsure of the difference between the design fundamentals and the design elements. Candidates show a good understanding of the use of IT and CAD. Candidates who scored well were those who used more detail as opposed to one word answers.

## Section Three: Wood (82 Marks)

Candidates found this section more challenging than the previous two which could be due to the combination of questions in this section. Some topics had not been covered in the last two examinations which probably was the issue. Candidates appear to have failed to read the questions properly, leading them to answer the question(s) incorrectly.

## **Section Three: Metal (82 Marks)**

Candidates found this section more challenging than the previous two which could be due to the combination of questions in this section. Some topics had not been covered in the last two examinations which probably was the issue. Candidates appear to have failed to read all the questions properly, leading them to answer the question incorrectly.

# **Section Three: Textiles (82 Marks)**

Candidates found this section more challenging than the previous two which could be due to the combination of questions in this section. Some topics had not been covered in the last two examinations which probably was the issue. Candidates appear to have failed to read all the questions properly, leading them to answer the question incorrectly.