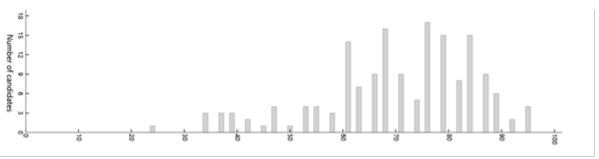


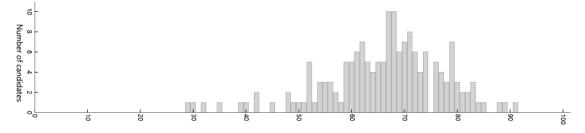
Summary report of the 2018 ATAR course examination: Materials Design and Technology

Year	Number who sat all examination components	Number of absentees from all examination components
2018	165	0
2017	200	0
2016	213	2

Examination score distribution—Practical



Examination score distribution-Written



Summary

Like previous years, the presentation of the candidates' portfolios and the standard of the content has continued to improve. Most candidates are including all criterion, with only a few 'no attempts' being recorded, mostly in portfolios that were not completed.

A positive from this year's portfolios was candidates analysing existing solutions with the design fundamentals and only a few candidates using Plus, Minus and Interesting charts. This gave candidates the opportunity to analyse the products in greater depth.

Candidates and their teachers need to continue working on improving parts of the portfolio. A large number of candidates are still including a wide range of research that is not relevant to the project or they are not justifying their choices. There needs to be a greater emphasis on concept development. A large number of candidates are producing a basic set of sketches and then jumping to a solution. Candidates need to demonstrate that there has been development through discussions with their clients and justify their choices through client feedback and the design fundamentals.

The written examination was well balanced, with a range of both scaffolded and more challenging questions for the candidates to complete. The addition of some syllabus points and questions that have not been included in the past few years seemed to catch some candidates off guard. Some candidates also appeared to misinterpret questions. This indicated they misunderstood the syllabus or misread the questions. The addition of more complex questions allowed for clearer judgment of the marks.

The majority of candidates coped well with Sections One and Two. They demonstrated a strong understanding of the common content. A small group of candidates are still unsure of the relationship between hazards and risk. Section Three was considered fair across the contexts, with the addition of the design criterion question being more closely aligned in terms of level of difficulty, as well as the inclusion of practical-styled questions that relied on technical language and processes.

Practical examination Attempted by 165 candidates	Mean 70.26%	Max 94.74%	Min 23.68%
Section means were:			
Practical Portfolio: Wood	Mean 66.51%		
Attempted by 84 candidates	Mean 66.51(/100)	Max 94.74%	Min 23.68%
Practical Portfolio: Metal	Mean 64.71%		
Attempted by 17 candidates	Mean 64.71(/100)	Max 89.47%	Min 39.47%
Practical Portfolio: Textiles	Mean 76.64%		
Attempted by 64 candidates	Mean 76.64(/100)	Max 94.74%	Min 44.74%
Written examination			
Attempted by 165 candidates	Mean 65.23(/100)	Max 89.65%	Min 27.82%
Section means were:			
Section One: Short answer	Mean 80.40%		
Attempted by 165 candidates	Mean 12.06(/15)	Max 15.00	Min 4.50
Section Two: Extended answer	Mean 68.90%		
Attempted by 165 candidates	Mean 17.22(/25)	Max 24.01	Min 1.32
Section Three: Wood	Mean 62.06%		
Attempted by 84 candidates	Mean 37.23(/60)	Max 54.00	Min 12.40
Section Three: Metal	Mean 58.16%		
Attempted by 17 candidates	Mean 34.89(/60)	Max 53.60	Min 16.40
Section Three: Textiles	Mean 57.55%		
Attempted by 64 candidates	Mean 34.53(/60)	Max 49.20	Min 6.00

General comments Practical examination

Advice for candidates

- Don't restrict yourself in the Statement of Intent with choices of materials and finishes.
 Cover all the design fundamentals and finalise choices in your research or concept development stages.
- Do not use coloured/patterned backgrounds as this can make it very difficult for the markers.
- Ensure all of your research work includes the justifications of your choices. These need to be tied into the design fundamentals.
- Show more detail in your concept development. Ensure that your work is outlined and/or coloured as pencil sketches can often be messy and difficult to read.
- In your design work and research, ensure that you refer to the design fundamentals and the client's wants and needs.
- Show clear development from your initial designs to your solution. Make reference to the client's feedback and requests.
- Ensure working drawings are detailed and show all main parts, sizes and joining methods.
- Ensure production plans/journals are easy to follow. Consider using a template that fits on individual pages.

• When completing your evaluation, ensure that you refer back to the Statement of Intent and the design fundamentals.

Advice for teachers

- Ensure candidates select projects that are going to give them a chance to produce a comprehensive portfolio.
- Ensure candidates do not restrict themselves in their Statement of Intent.
- Encourage candidates to avoid using PMI's in their research. Candidates that use this technique often fail to provide detail about any of the design fundamentals in their research.
- Ensure candidates show that they understand what they have researched, justifying their choices by relating back to their Statement of Intent.
- Work on candidates sketching techniques and ensure that they are clearly showing the stages of progression (initial concepts, concept development and solution drawing) through their designs.
- Through their design development, ensure candidates are using annotations that demonstrate that they have worked with the client and considered their wants and needs.
- Ensure candidates are keeping an accurate work journal during the production of their projects.
- Ensure portfolios are submitted in the correct format.

Written examination

Advice for candidates

- Ensure that you read all questions carefully.
- Be sure you know what the question is asking before you start your answer.
- Handwriting is very important. If your handwriting is messy it makes it difficult for markers to read your work.
- Re-read questions and answers together to ensure that questions have not been misinterpreted.
- Use examples to support statements where required.
- Try not to repeat the question in your answer as this often leads to a lot of wasted information being included.
- Create subheadings to respond to extended answer questions. Highlight or underline keywords in the questions. Either create dot points to answer the question under each subheading or highlight key points. This helps to avoid repeating points.
- Do not leave a question blank. A basic attempt is better than no attempt and may help you to earn more marks.

Advice for teachers

- Ensure candidates know how to lay out their responses. Promote the use of highlighters to highlight keywords in questions.
- Encourage candidates to take the time to read through the questions and make sure they understand them.
- Encourage candidates to write neatly.
- Encourage candidates to use the back pages of the examination for note taking or breaking down a question.

Comments on specific sections and questions Practical examination

Practical Portfolio (Wood) (38 marks)

Mostly, the Statement of Intent is being completed to a high standard, with candidates covering all of the design fundamentals as well as client's wants and needs. Unlike the other contexts, this aspect has improved from last year. Research is still a weak point for the portfolio with candidates using a lot of information that lacks detail and justification or any relation to the

Statement of Intent. Wood candidates had the lowest average over the contexts when it came to concept development. The majority of candidates are failing to score over three marks for the concepting as they often show no development or they produce two or three isolated sketches and then their solution. Many candidates did not show clear concept development in their sketches, often producing concepts and jumping to a solution. Candidates need to ensure that they are showing clear development and relate it to the client's wants and needs. Production planning was done well but some candidates are missing out on marks by not including all costings and/or not being detailed in their production planning. Candidates need to ensure that they are including more detail and, most importantly, revised plans. Candidates who completed the Statement of Intent well found that the evaluation was easy as they were able to reference back to it.

Practical Portfolio (Metal) (38 marks)

Mostly, the Statement of Intent is being completed to a high standard, with candidates covering all of the design fundamentals as well as client's wants and needs. However, this was less well done than last year. Research is still a weak point for the portfolio with candidates using a lot of information that lacks detail and justification or any relation to the Statement of Intent. The majority of candidates are failing to score over three marks for concept development as they often show no development or they produce two or three isolated sketches and then their solution. Many candidates did not show clear concept development in their sketches, often producing concepts and jumping to a solution. Candidates need to ensure that they are showing clear development and relate it to the client's wants and needs. Production planning was done well but some candidates are missing out on marks by not including all costings and/or not being detailed in their production planning. Candidates need to ensure that they are including more detail and, most importantly, revised plans. Candidates who completed the Statement of Intent well, found that the evaluation was easy as they were able to reference back to it.

Practical Portfolio (Textiles) (38 marks)

Mostly, the Statement of Intent is being completed to a high standard, with candidates covering all of the design fundamentals as well as client's wants and needs. However, this was less well done than last year. Research is still a weak point for the portfolio with candidates using a lot of information that lacks detail and justification or any relation to the Statement of Intent. Textiles candidates are still outperforming the other contexts when it comes to concept development; however, the majority of candidates are failing to score over three marks for the concepting as they often show no development or they produce a range of isolated sketches and then their solution. Many candidates did not show clear concept development in their sketches, often producing concepts and jumping to a solution. Candidates need to ensure that they are showing clear development and relate it to the client's wants and needs. Production planning was done well but some candidates are missing out on marks by not including all costings and/or not being detailed in their production planning. Candidates need to ensure that they are including more detail and, most importantly, revised plans. Candidates who completed the Statement of Intent well found that the evaluation was easy as they were able to reference back to it.

Written examination

Section One: Short answer (30 Marks)

Candidates scored well in this section and there were only a few non-triers.

Section Two: Extended answer (38 Marks)

Candidates performed well in the extended answer section of the examination, demonstrating sound knowledge of the common content. Questions 5 and 7 were answered particularly well. Question 4, however, demonstrated that many candidates lacked understanding of the difference between hazard and risk.

Section Three: Wood (75 marks)

Candidates found this section more challenging than the previous two. This may have been due to the nature of the questions, with some of the topics not being covered in recent years.

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