



## ENGINEERING GRAPHICS AND DESIGN

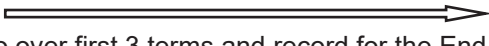
### 2024 GRADE 10

### Assessment Requirements & Weightings

**Programmes of Formal Assessment:**

<b>2024 <u>GRADE 10</u> PROGRAMME of FORMAL ASSESSMENT</b>					
<b>INTERNAL FORMAL ASSESSMENT: 100%</b>					
<b>LEARNER'S EGD FILE(S): 60%</b>					
<b>SCHOOL BASED ASSESSMENT (SBA)</b> 40% of final Promotion Mark (Internally set and assessed)		<b>PRACTICAL ASSESSMENT TASK (PAT)</b> 20% of final Promotion Mark (Externally set & internally assessed)		<b>END OF YEAR EXAMINATION</b> 40% of final Promotion Mark (Internally set, and internally assessed)	
<b>Course Drawings:</b> ALL the final marks of the 12 prescribed CDs	40% of final SBA mark	<b>PAT Phase 1:</b> The Design Process	36%	TWO 2-hour Papers, with the final mark for each paper being a mark that has been converted to 100.	
		<b>PAT Phase 2:</b> Working & 3D Drawings	25%		
<b>Mid-year Examination:</b> (ONE 3-hr paper with a final mark that has been converted to 100)	60% of final SBA mark	<b>PAT Phase 3:</b> Self-assess. & Presentation	14%	<b>Paper 1</b> 2 hrs	100 marks
		<b>Draw. Method &amp; Present.:</b>	25%	<b>Paper 2</b> 2 hrs	100 marks
<b>TOTAL</b>	100% of SBA mark	<b>TOTAL</b>	100 marks	<b>TOTAL</b>	200 marks

**Annual Formal Assessment Recording Programmes:**

<b>2024 <u>GRADE 10</u> RECORDING PROGRAMME</b>					
Assessment Tasks	Term 1	Term 2	Term 3	Term 4	% of Final Promotion Mark
Course Drawings (CDs)	3 10% of SBA	3 10% of SBA	5 17% of SBA	1 3% of SBA	16%
Mid-year Examination		1 60% of SBA			24%
Practical Assessment Task (PAT)	 Do over first 3 terms and record for the End of Year (Promotional) Mark only.			1	20%
End of Year Examination				1	40%
				<b>TOTAL</b>	<b>100%</b>

### Official SBA Tasks, and Composition of the Promotional Marks:

2024 GRADE 10 SBA TASKS					
TERM 1		TERM 2		TERM 3	
Assessment Tasks & contribution for the term		Assessment Tasks & contribution for the term		Assessment Tasks & contribution for the term	
<b>Course Drawings:</b> <ul style="list-style-type: none"> <li>Freehand drawing</li> <li>1<sup>st</sup> Geometrical construction (polygons and arc constructions)</li> <li>2<sup>nd</sup> Geometrical construction (must include an ellipse)</li> </ul>	100% of Term mark	<b>Course Drawings:</b> <ul style="list-style-type: none"> <li>1<sup>st</sup> Mechanical drawing</li> <li>2<sup>nd</sup> Mechanical drawing</li> <li>Isometric drawing</li> </ul>	40% of Term mark	<b>Course Drawings:</b> <ul style="list-style-type: none"> <li>1<sup>st</sup> Solid geometry (prism or pyramid)</li> <li>2<sup>nd</sup> Solid geometry (cylinder or cone)</li> <li>Descriptive geometry</li> <li>Civil floor plan</li> <li>Civil sectional elevation</li> </ul>	100% of Term mark
		<b>Mid-year Examination</b>			
TERM 4	Assessment Task	<ul style="list-style-type: none"> <li>1-point perspective</li> </ul>	For final/promotional SBA mark only		

2022 GRADE 10 PROMOTION MARK COMPOSITION		
Assessment Tasks		Compulsory contribution
SBA	ALL Course Drawings	16%
	Mid-year Examination: ONE paper (100 marks)	24%
Practical Assessment Task (PAT)		20%
End of Year Examination: Paper 1 (100 marks) & Paper 2 (100 marks)		40%
<b>TOTAL</b>		<b>100%</b>

### Format & Composition of Examinations:

2024 GRADE 10 Format & Composition of MID-YEAR Examination		
ONE PAPER (3 hours)		
Q 1	General drawing principles & Mechanical analytical	± 10%
Q 2	Freehand drawing	± 10%
Q 3	Geometrical construction, incl. Ellipse construction	± 20%
Q 4	Isometric drawing	± 25%
Q 5	Mechanical working drawing	± 35%

2024 GRADE 10 Format & Composition of END-OF-YEAR Examination					
TWO 2-hour papers, with the final mark for each paper being a mark that has been converted to 100.					
PAPER 1 -CIVIL- (2 hours) In first-angle orthographic projection			PAPER 2 -MECHANICAL- (2 hours) In third-angle orthographic projection		
Q 1	Civil analytical	± 15%	Q 1	Mechanical analytical	± 20%
Q 2	Solid geometry <b>and/or</b> Descriptive geometry	± 25%	Q 2	Geometrical const. + Ellipse	± 25%
Q 3	1-point perspective drawing	± 25%	Q 3	Isometric drawing	± 25%
Q 4	Civil working drawing	± 35%	Q 4	Mechanical working drawing	± 30%



## ENGINEERING GRAPHICS AND DESIGN


### 2024 **GRADE 11**

### Assessment Requirements & Weightings

**Programmes of Formal Assessment:**

<b>2024 <b>GRADE 11</b> PROGRAMME of FORMAL ASSESSMENT</b>					
<b>INTERNAL FORMAL ASSESSMENT: 100%</b>					
<b>LEARNER'S EGD FILE(S): 60%</b>					
<b>SCHOOL BASED ASSESSMENT</b> 40% of final Promotion Mark (Internally set and assessed)		<b>PRACTICAL ASSESSMENT TASK (PAT)</b> 20% of final Promotion Mark (Externally & internally set & internally assessed)		<b>END OF YEAR EXAMINATION</b> 40% of final Promotion Mark (Internally set, and internally assessed)	
<b>Course Drawings:</b> ALL the final marks of the 13 prescribed CDs	40% of final SBA mark	<b>PAT Phase 1:</b> The Design Process	29%	TWO 3-hour Papers, with the final mark for each paper being a mark that has been converted to 100.	
		<b>PAT Phase 2:</b> Working & 3D Drawings	35%		
<b>Mid-year Examination:</b> (TWO 2½-hr papers, with the final mark for each paper a mark that has been converted to 100.)	60% of final SBA mark	<b>PAT Phase 3:</b> Self-assess. & Presentation	11%	<b>Paper 1</b> 3 hrs	100 marks
		<b>Draw. Method &amp; Present.:</b>	25%	<b>Paper 2</b> 3 hrs	100 marks
<b>TOTAL</b>	100% of SBA mark	<b>TOTAL</b>	100 marks	<b>TOTAL</b>	200 marks

**Annual Formal Assessment Recording Programmes:**

<b>2024 <b>GRADE 11</b> RECORDING PROGRAMME</b>					
Assessment Tasks	Term 1	Term 2	Term 3	Term 4	% of Final Promotion Mark
<b>Course Drawings (CDs)</b>	4 13% of SBA	3 9% of SBA	5 15% of SBA	1 3% of SBA	16%
<b>Mid-year Examination</b>		1 60% of SBA			24%
<b>Practical Assessment Task (PAT)</b>	 Do over first 3 terms and record for the End of Year (Promotional) Mark only.			1	20%
<b>End of Year Examination</b>				1	40%
				<b>TOTAL</b>	<b>100%</b>

### Official SBA Tasks, and Composition of the Promotional Marks:

2024 GRADE 11 SBA TASKS						
TERM 1		TERM 2		TERM 3		
Assessment Tasks & contribution for the term		Assessment Tasks & contribution for the term		Assessment Tasks & contribution for the term		
<b>Course Drawings:</b> <ul style="list-style-type: none"> <li>Mechanical analytical</li> <li>1<sup>st</sup> Mechanical assembly</li> <li>2<sup>nd</sup> Mechanical assembly</li> <li>Isometric drawing</li> </ul>		100% of Term mark	<b>Course Drawings:</b> <ul style="list-style-type: none"> <li>2-point perspective</li> <li>Civil floor plan with elevations</li> <li>Civil sectional elevation</li> </ul>	40% of Term mark	<b>Course Drawings:</b> <ul style="list-style-type: none"> <li>1<sup>st</sup> Solid geometry (two adjacent sectioned Solids)</li> <li>2<sup>nd</sup> Solid geometry (sectioned solid with a hole)</li> <li>1<sup>st</sup> Interpenetration &amp; develop. (two prisms)</li> <li>2<sup>nd</sup> Interpenetration &amp; develop. [including a cylinder(s)]</li> <li>3<sup>rd</sup> Mechanical assembly</li> </ul>	100% of Term mark
			<b>Mid-year Examination</b>	60% of Term mark		
TERM 4	Assessment Task	<ul style="list-style-type: none"> <li>Loci (Cam)</li> </ul>		For final/promotional SBA mark only		

2022 GRADE 11 PROMOTION MARK COMPOSITION		
Assessment Tasks		Compulsory contribution
SBA	ALL Course Drawings	16%
	Mid-year Examination: Paper 1 (100 marks) & Paper 2 (100 marks)	24%
Practical Assessment Task (PAT)		20%
End of Year Examination: Paper 1 (100 marks) & Paper 2 (100 marks)		40%
<b>TOTAL</b>		<b>100%</b>

### Format & Composition of Examinations:

2024 GRADE 11 Format & Composition of MID-YEAR Examination					
PAPER 1 -CIVIL- (2½ hours) In first-angle orthographic projection			PAPER 2 -MECHANICAL- (2½ hours) In third-angle orthographic projection		
Q 1	Civil analytical	± 18%	Q 1	Mechanical analytical	± 18%
Q 2	2-point perspective drawing	± 32%	Q 2	Isometric drawing	± 32%
Q 3	Civil working drawing	± 50%	Q 3	Mechanical assembly	± 50%

2024 GRADE 11 Format & Composition of END-OF-YEAR Examination					
TWO 3-hour papers, with the final mark for each paper being a mark that has been converted to 100.					
PAPER 1 -CIVIL- (3 hours) In first-angle orthographic projection			PAPER 2 -MECHANICAL- (3 hours) In third-angle orthographic projection		
Q 1	Civil analytical	± 15%	Q 1	Mechanical analytical	± 15%
Q 2	Solid geometry <b>and/or</b> Interpenetration and development	± 20%	Q 2	Loci of a Cam	± 20%
Q 3	2-point perspective drawing	± 25%	Q 3	Isometric drawing	± 25%
Q 4	Civil working drawing	± 40%	Q 4	Mechanical assembly	± 40%



## ENGINEERING GRAPHICS AND DESIGN

### 2024 **GRADE 12**

### Assessment Requirements & Weightings

**Programmes of Formal Assessment:**

<b>2024 <b>GRADE 12</b> PROGRAMME of FORMAL ASSESSMENT</b>					
<b>INTERNAL SCHOOL BASED ASSESSMENT (SBA)</b> 25% of final NSC Mark (Internally set and assessed)		<b>EXTERNAL ASSESSMENT: 75%</b>			
		<b>PRACTICAL ASSESSMENT TASK (PAT)</b> 25% of final NSC Mark (Externally set & internally assessed)		<b>FINAL NSC EXAMINATION</b> 50% of final NSC Mark (Externally set & assessed)	
<b>LEARNER'S EGD FILE</b>		<b>LEARNER'S PAT FILE/PORTFOLIO</b>		The final mark for each paper will be a mark that has been converted from 200 to 100.	
<b>Course Drawings:</b> ALL the final marks of the 15 prescribed CDs	30% of final SBA mark	<b>PAT Phase 1:</b> The Design Process	18%		
<b>Examinations:</b> (ALL final marks converted to 100) • <b>Mid-year</b> (Paper 1: 3 hrs & Paper 2: 2½ hrs) • <b>Preparatory</b> (Paper 1: 3 hrs & Paper 2: 3 hrs)	70% of final SBA mark	<b>PAT Phase 2:</b> Working & 3D Drawings	50%	<b>Paper 2</b> 3 hrs (200 ÷ 2 = 100)	
		<b>PAT Phase 3:</b> Self-assess. & Presentation	7%		
<b>TOTAL</b>	100% of SBA mark	<b>TOTAL</b>	100 marks	<b>TOTAL</b>	200 marks

**Annual Formal Assessment Recording Programmes:**

<b>2024 <b>GRADE 12</b> RECORDING PROGRAMME</b>					
Assessment Tasks	Term 1	Term 2	Term 3	Term 4	% of Final Promotion Mark
Course Drawings (CDs)	6 12% of SBA	4 8% of SBA	5 10% of SBA		7½%
Mid-year & Preparatory Examinations		1 25% of SBA	1 45% of SBA		17½%
Practical Assessment Task (PAT)	Do over first 3 terms and record for the NSC Mark only.			1	25%
Final NSC Examination				1	50%
				<b>TOTAL</b>	<b>100%</b>

### Official SBA Tasks, and Composition of the NSC Marks:

2024 GRADE 12 SBA TASKS					
TERM 1		TERM 2		TERM 3	
Assessment Tasks & contribution for the term		Assessment Tasks & contribution for the term		Assessment Tasks & contribution for the term	
<b>Course Drawings:</b> <ul style="list-style-type: none"> <li>Mechanical analytical exercise</li> <li>1<sup>st</sup> Mechanical assembly</li> <li>Civil sectional elevation</li> <li>Civil floor plan + elevations</li> <li>Civil site plan</li> <li>2-point perspective</li> </ul>	100% of Term mark	<b>Course Drawings:</b> <ul style="list-style-type: none"> <li>Isometric drawing</li> <li>Solid geometry</li> <li>1<sup>st</sup> Interpenetration &amp; development (two prisms)</li> <li>2<sup>nd</sup> Mechanical assembly</li> </ul>	25% of Term mark	<b>Course Drawings:</b> <ul style="list-style-type: none"> <li>2<sup>nd</sup> Interpenetration &amp; development [incl. cylinder(s)]</li> <li>Loci (Cam)</li> <li>1<sup>st</sup> Loci (Mechanisms)</li> <li>2<sup>nd</sup> Loci (Mechanisms)</li> <li>3<sup>rd</sup> Mechanical assembly</li> </ul>	25% of Term mark
		<b>Mid-year Examination:</b> Paper 1 & Paper 2	75% of Term mark	<b>Preparatory Examination:</b> Paper 1 & Paper 2	75% of Term mark

2024 GRADE 12 PROMOTION MARK COMPOSITION		
Assessment Tasks		Compulsory contribution
SBA	ALL Course Drawings	7½%
	Mid-year Examination: Paper 1 (100 marks) & Paper 2 (100 marks)	6¼%
	Preparatory Examination: Paper 1 (100 marks) & Paper 2 (100 marks)	11¼%
Practical Assessment Task (PAT)		25%
November (final) Examination: Paper 1 (100 marks) & Paper 2 (100 marks)		50%
<b>TOTAL</b>		<b>100%</b>

### Format & Composition of Examinations:

2024 GRADE 12 Format & Composition of MID-YEAR Exam.					
PAPER 1 -CIVIL- (3 hours) In first-angle orthographic projection			PAPER 2 -MECHANICAL- (2½ hours) In third-angle orthographic projection		
Q 1	Civil analytical	± 15%	Q 1	Mechanical analytical	± 20%
Q 2	Solid geometry	± 25%	Q 2	Isometric drawing	± 25%
Q 3	2-point perspective drawing	± 25%	Q 3	Mechanical assembly	± 55%
Q 4	Civil working drawing	± 35%			

2024 GRADE 12 Format & Composition of PREPARATORY Examination					
PAPER 1 -CIVIL- (3 hours) In first-angle orthographic projection			PAPER 2 -MECHANICAL- (3 hours) In third-angle orthographic projection		
Q 1	Civil analytical	± 15%	Q 1	Mechanical analytical	± 15%
Q 2	Solid geometry <b>and/or</b> interpenetration and development	± 20%	Q 2	Loci of a cam <b>and/or</b> loci of a mechanism	± 20%
Q 3	2-point perspective drawing	± 20%	Q 3	Isometric drawing	± 20%
Q 4	Civil working drawing including electrical features	± 45%	Q 4	Mechanical assembly	± 45%

**2024 GRADE 12 Format & Composition of FINAL NSC Examination**

<b>PAPER 1 -CIVIL-</b> <b>(3 hours) In first-angle orthographic projection</b>			<b>PAPER 2 -MECHANICAL-</b> <b>(3 hours) In third-angle orthographic projection</b>		
Q 1	Civil analytical	± 15%	Q 1	Mechanical analytical	± 15%
Q 2	Solid geometry <u>and/or</u> interpenetration and development	± 20%	Q 2	Loci of a cam <u>and/or</u> loci of a mechanism	± 20%
Q 3	2-point perspective drawing	± 20%	Q 3	Isometric drawing	± 20%
Q 4	Civil working drawing including electrical features	± 45%	Q 4	Mechanical assembly	± 45%

