



## ENGINEERING GRAPHICS & DESIGN 2024 **GRADE 10**

### ATP/Curriculum Coverage, and SBA Completion

**NOTE:**

- ALL GDE teachers, schools, officials, and districts **must use these percentages** and numbers when reporting on the EGD 'Percentage of Curriculum Covered' & 'Number of SBAs Completed'.
- The '% Curriculum (Curr.) Covered' indicates the percentage when the **topic has been completed**.
- As each **Course Drawing (CD) mark**, except for the Mechanical working drawings, **must consist of more than ONE task**, the 'No.' for the '**SBAs Completed**' may only be indicated (reported on) once ALL the tasks (DDEs) that are to be used to obtain the FINAL recorded CD mark, have been completed.
- The number of prescribed **Grade 10 SBA tasks** for **2024**:
  - Course Drawings (CDs): **12**
  - Mid-Year Assessment: **1**
  - TOTAL No. of SBA Tasks: 13**

#### 2024 **GRADE 10** Examinable Topics and Prescribed SBA Tasks

Term	Examinable Topics	% ATP Covered	Prescribed SBA Tasks	No. (%) SBA Completed
1	General drawing principles	5%		
	Freehand drawings	8%	CD1: Freehand drawing	1 / 13 (8%)
	Setting up drawing sheets	10%		
	Geometrical constructions	21%	CD2: 1 <sup>st</sup> Geometrical construction <i>(fig. with polygons &amp; constructions)</i>	2 / 13 (158%)
CD3: 2 <sup>nd</sup> Geometrical construction <i>(figures that include an ellipse)</i>			3 / 13 (238%)	
2	Scales	24%		
	Mechanical drawing	45%	CD4: 1 <sup>st</sup> Mechanical working draw.	4 / 13 (31%)
			CD5: 2 <sup>nd</sup> Mechanical working draw.	5 / 13 (39%)
	Isometric drawing	56%	CD6: Isometric drawing	6 / 13 (46%)
		Mid-year Examination (1 x Paper)	7 / 13 (54%)	
3	Solid geometry	66%	CD7: 1 <sup>st</sup> Solid geometry <i>(prism or pyramid)</i>	8 / 13 (62%)
			CD8: 2 <sup>nd</sup> Solid geo. <i>(cylinder or cone)</i>	9 / 13 (69%)
	Descriptive geometry	68%	CD8: Descriptive geometry	10 / 13 (77%)
	Civil drawing	89%	CD10: Civil floor plan	11 / 13 (84%)
			CD11: Civil sectional elevation	12 / 13 (92%)
1-point perspective	94%			
4	1-point perspective	100%	CD12: 1-point perceptive	13 / 13 (100%)

### PAT Completion

#### 2024 **GRADE 10** PAT Requirements

Term	PAT Phase/Presentation Requirements	% of PAT Mark	% of Final PAT Mark Completed
2	Phase 1: The Design Process	36%	36%
	Freehand drawing method & presentation	12.5%	48.5%
3	Phase 2: working drawing & 3D drawing (25%)	25%	73.5%
	Drawing instrument method & presentation	12.5%	86%
	Phase 3: Self-evaluation & final presentation	14%	100%



## ENGINEERING GRAPHICS & DESIGN 2024 **GRADE 11**

### ATP/Curriculum Coverage, and SBA Completion

**NOTE:**

- ALL GDE teachers, schools, officials, and districts **must use these percentages** and numbers when reporting on the EGD 'Percentage of Curriculum Covered' & 'Number of SBAs Completed'.
- The '% Curriculum (Curr.) Covered' indicates the percentage when the topic has been completed.
- As each **Course Drawing (CD)** mark, except for the Mechanical assemblies, **must consist of more than ONE task**, the 'No.' for the '**SBAs Completed**' may only be indicated (reported on) once ALL the tasks (DDEs) that are to be used to obtain the FINAL recorded CD mark, have been completed.
- The number of prescribed **Grade 11 SBA tasks** for **2024**:
  - Course Drawings (CDs): **13**
  - Mid-Year Assessment: **1**
  - TOTAL No. of SBA Tasks: 14**

### 2024 **GRADE 11** Examinable Topics and Prescribed SBA Tasks

Term	Examinable Topics	% ATP Covered	Prescribed SBA Tasks	No. (%) SBA Completed
1	Mechanical drawing	25%	CD1: Mechanical analytical	1 / 14 (7%)
			CD2: 1 <sup>st</sup> Mechanical assembly	2 / 14 (14%)
			CD3: 2 <sup>nd</sup> Mechanical assembly	3 / 14 (21%)
	Isometric drawing	36%	CD4: Isometric drawing	4 / 14 (29%)
2	2-point perspective	47%	CD5: 2-point perspective	5 / 14 (35%)
	Civil drawing	72%	CD6: Civil floor plan + elevations	6 / 14 (43%)
			CD7: Civil sectional elevation	7 / 14 (50%)
			Mid-year Examination (P1 & P2)	8 / 14 (54%)
3	Solid geometry	82%	CD8: 1 <sup>st</sup> Solid geometry (2 adjacent sectioned solids)	9 / 14 (64%)
			CD9: 2 <sup>nd</sup> Solid geometry (sectioned solid with a hole)	10 / 14 (71%)
	Interpenetration & Development	91%	CD10: 1 <sup>st</sup> Interpenetration & Development (2 prisms)	11 / 14 (79%)
			CD11: 2 <sup>nd</sup> Interpenetration & Develop. [incl. a cylinder(s)]	12 / 14 (85%)
	Loci of a Cam	95%		
		CD12: 3 <sup>rd</sup> Mechanical assembly	13 / 14 (93%)	
4	Loci of a Cam	100%	CD13: Loci of a Cam	14 / 14 (100%)

### PAT Completion

#### 2024 **GRADE 11** PAT Requirements

Term	PAT Phase/Presentation Requirements	% of PAT Mark	% of Final PAT Mark Completed
1	Phase 1: The Design Process	29%	29%
	Freehand drawing method & presentation	12.5%	41.5%
2	Phase 2: Working drawing & 3D drawing	35%	76.5%
	Drawing instrument method & presentation	12.5%	89%
3	Phase 3: Self-evaluation & final presentation	11%	100%



## ENGINEERING GRAPHICS & DESIGN 2024 **GRADE 12**

### ATP/Curriculum Coverage, and SBA Completion

**NOTE:**

- ALL GDE teachers, schools, officials, and districts **must use these percentages** and numbers when reporting on the EGD 'Percentage of Curriculum Covered' & 'Number of SBAs Completed'.
- The '% Curriculum (Curr.) Covered' indicates the percentage when the topic has been completed.
- As each **Course Drawing (CD)** mark, except for the Mechanical assemblies, **must consist of more than ONE task**, the 'No.' for the 'SBAs Completed' may only be indicated (reported on) once ALL the tasks (DDEs) that are to be used to obtain the FINAL recorded CD mark, have been completed.
- The number of prescribed **Grade 12 SBA tasks** for **2024**:
  - Course Drawings (CDs): **15**
  - Mid-Year Examination: **1**
  - Preparatory Examination: **1**

**TOTAL No. of SBA Tasks: 17**

#### 2024 **GRADE 12** Examinable Topics and Prescribed SBA Tasks

Term	Examinable Topics	% ATP Covered	Prescribed SBA Tasks	No. (%) SBA Completed
<b>1</b>	Mechanical drawing	25%	CD1: 1 <sup>st</sup> Mechanical assembly	1 / 17 (6%)
			CD2: Mechanical analytical	2 / 17 (12%)
	Civil drawing	50%	CD3: Civil floor plan with elevations	3 / 17 (17%)
			CD4: Civil sectional elevation	4 / 17 (24%)
2-point perspective	59%	CD5: Civil site plan ( <i>can be 3 or more Gr. 12 site plan analytical Qs</i> )	5 / 17 (29%)	
<b>2</b>	Isometric drawing	68%	CD6: 2-point perspective	6 / 17 (35%)
	Solid geometry	76%	CD7: Isometric drawing	7 / 17 (41%)
	Interpenetration & Development	82%	CD8: Solid geometry	8 / 17 (47%)
			CD9: 1 <sup>st</sup> Interpenetration & Development ( <i>2 prisms</i> )	9 / 17 (53%)
			CD10: 2 <sup>nd</sup> Mechanical assembly	10 / 17 (59%)
			Mid-year Examination ( <i>P1 &amp; P2</i> )	11 / 17 (65%)
	Interpenetration & Development	84%	CD11: 2 <sup>nd</sup> Interpenetration & Develop. ( <i>incl. a cylinder</i> )	12 / 17 (71%)
	Loci of a Cam	92%	CD12: Loci of a Cam	13 / 17 (77%)
	Loci of a point(s) on a Mechanism	100%	CD13: 1 <sup>st</sup> Loci on a Mechanism	14 / 17 (82%)
			CD14: 2 <sup>nd</sup> Loci on a Mechanism	15 / 17 (88%)
		CD15: 3 <sup>rd</sup> Mechanical assembly	16 / 17 (94%)	
		Prep. Examination ( <i>P1 &amp; P2</i> )	17 / 17 (100%)	

### PAT Completion

#### 2024 **GRADE 12** PAT Requirements

Term	PAT Phase/Presentation Requirements	% of PAT Mark	% of Final PAT Mark Completed
<b>1</b>	Phase 1: The Design Process	18%	18%
	Freehand drawing method & presentation	12.5%	30.5%
<b>2</b>	Phase 2: Working drawing & 3D drawing	50%	80.5%
	Drawing instrument method & presentation	12.5%	93%
<b>3</b>	Phase 3: Self-evaluation & final presentation	7%	100%