

Course Overviews DP , UWC Thailand 2017-2018

All units taught in grades 11 and 12 are continuously being developed and improved to best meet the needs of the students at UWCT. Therefore, the following overview is only a reflection of current plans for the course. Some changes to these course overviews may occur as a result of planning done throughout the academic year.

Grade	Time Frame	Unit number and title	Approaches To learning skills taught / learnt / developed in this unit	Content (topics / knowledge/ subject specific skills)	Connections to TOK	Ass. Crit	Summative assessment
11 SL/HL	6 Hrs	Foundation Skills: Technical Illustration	ATL: Communication LP: Communicator	Introduction to freehand drawing, one and two-point perspective, shading and colour rendering. Graphics is a universal language	To what extent does a drawing represent reality?	B	Orthographic technical illustration
11 SL/HL	12 Hrs	T1. Human Factors and Ergonomics	ATL: Research LP: Inquirer, principled, open minded	1.1a Anthropometrics 1.1b Psychological factors 1.1c Physiological factors	Do the methods of data collection used in design technology have more in common with disciplines in the human sciences or the natural sciences?	C	T1: Formative Assessment Practical activities T1: End of Topic Summative testPap
12 SL/HL	12 Hrs	T7. User Centred Design (UCD)	ATL: Thinking Skills LP: Thinkers	7.1 User-centred design (UCD) 7.2 Usability 7.3 Strategies for user research 7.4 Strategies for user-centred design (UCD) 7.5 Beyond usability - designing for pleasure and emotion	Design considers the needs of individuals as paramount. Is this the case in other areas of knowledge? Are emotions purely physiological or are they culturally bound?	A	T7: End of Topic Summative Test
11 SL/HL	7 Hrs	Foundational Skills: Computer Assisted Drawing - CAD	ATL: Communicator LP: Communication	Introduction to Sketchup Introduction to Photoshop Introduction to Fusion 360	To what extent can machines take the place of humans?	B	Formative CAD 3D render.

11 SL/HL	23 Hrs	T4. Raw Material to Final Product	ATL: Thinking Skills LP: Thinkers	4.1 Properties of materials 4.2.a Metals and metallic alloys 4.2.b Timber 4.2.c Glass 4.2.d Plastics 4.2.e Textiles 4.2.f Composites 4.3 Scale of production 4.4 Manufacturing processes 4.5 Production systems 4.6 robots in automated production	Through specialized vocabularies, is it the case that shaping of knowledge is more dramatic in some areas of knowledge than others?	A B C D	TDA (summative) Product design and manufacture in bamboo with supporting design folio. Assessment criteria A,B,C & D EOT Paper 1 test EOT Paper 2 test
11 SL/HL	13 Hrs	T5. Innovation and Design	ATL: Research Skills LP: Inquirers Reflective	5.1 Invention 5.2 Innovation 5.3 Strategies for innovation 5.4 Stakeholders in invention and innovation 5.5 Product life cycle 5.6 Rogers characteristics of innovation and consumers 5.7 Innovation, design and marketing specifications	What is the role of imagination in invention? Are there limits to what can be imagined? Sometimes there are unforeseen consequences of inventions. To what extent might lack of knowledge be an excuse for unethical conduct?	E	Formative Assessment: Famous inventions. Formative Assessment Case Study: Mobile Media Devices. EOT Paper 1 Test
11 SL/HL	12 Hrs	T3. Modelling	ATL: Communication Self-management LP: Communicator Risk Taker	3.1 Conceptual modelling 3.2 Graphical modelling 3.3. Physical modelling 3.4 CAD 3.5 Rapid prototyping	In the construction of a model, how can we know which aspects of the world to include and which to ignore?	B C D	Summative Assessment: Physical modelling assignment supported by design folio. EOT Paper 1 test
11 HL	12 Hrs	T9. Innovations and Markets	ATL: Research Skills Thinking Skills LP: Inquirers Thinkers	9.1 Corporate strategies 9.2 Market sectors and segments 9.3 Marketing mix 9.4 Market research 9.5 Branding	Is strategic planning more influenced by reason, intuition or imagination? Or by a combination of all of the ways of knowing?		EOT Paper 1 & 2 Test
11 HL	15	T10. Commercial production	ATL: Research Skills Thinking Skills LP: Inquirers Thinkers		Manufacturers decide whether to pursue JIT or JIC as a production strategy depending on their perception of where the market is going. To what extent do different areas of knowledge incorporate doubt as a part of their methods?		T10. Formative Assignment EOT Test Paper 1

12 SL/HL	22 Hrs	T2: Resource Management and Sustainability	ATL: Thinking Skills LP: Thinkers Knowledgable Reflective		To what extent should potential damage to the environment limit our pursuit of knowledge?	A	T2 Formative Assignment EOT Test Paper 2
11 SL/HL	8	T6: Classic Design	ATL: Research Skills LP: Thinkers Knowledgable		Classic design often appeals to our emotions. Are emotions universal?	B	Summative Assignment: Classic Design Presentation
11 HL	14	T8: Sustainability	ATL: Thinking Skills LP: Reflective Thinkers		Design involves making value judgments in deciding between different ways of interacting with the environment. Is this the case in other areas of knowledge? Eco-warriors sometimes break laws to express their views. Does the rightness or wrongness of an action depend on the situation?	D	Formative Assignment Sustainable consumption EOT Test paper 2111
	HL = 240 SL =150						
			MAJOR IA: YEAR 2				
			Criteria A				
			Criteria B				
			Criteria C				
			Criteria D				
			Criteria E				
			Criteria F				
HL	86						

SL	50						
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