

Full Title:	CAD and Computer Applications
Language of Instruction:	English
Module Code:	CADM E7008
Credits:	10
Valid From:	Semester 1 - 2014/15 (September 2014)
Module Delivered in	1 programme(s)
Module Description:	This module expands on the knowledge, comprehension and application of CAD 1 to develop more complicated drawings and to incorporate the use of other industry used software packages into the student's range of design office, management and entrepreneurial based skills.
Learning Outcomes:	
<i>On successful completion of this module the learner should be able to</i>	
<ol style="list-style-type: none"> 1. Modify objects using properties; Create, appraise and manage blocks 2. Integrate drawing software with other software packages such as AutoCAD Civil 3D, Microsoft Excel and Project 3. Examine areas of Building Information Modelling (BIM) 4. Design a coordinated set of drawings for a civil engineering project based at an international level 5. Manage design office procedures for a small to medium sized consultancy practice and the entrepreneurial skills involved. 	

Module Content & Assessment

Indicative Content
Economizing Workload with CAD Modify objects using properties; Create, appraise and manage blocks
Excel Calculating and graphing tools, importing data from CAD, exporting data to CAD
Microsoft Project The project plan, work activities, resources, critical path, tracking progress
Design Office Practices Document transmittals, X-refs, set up your own CAD business
AutoCAD Civil 3D Construction Documentation, road, bridge and geotechnical modeling, national and international projects

Assessment Breakdown	%
Course Work	100.00%

Full Time

Course Work							
<i>Assessment Type</i>	<i>Assessment Description</i>	<i>Outcome addressed</i>	<i>% of total</i>	<i>Marks Out Of</i>	<i>Pass Marks</i>	<i>Assessment Date</i>	<i>Duration</i>
Continuous Assessment	Assessment # 1 Project using AutoCAD and Excel	1,2	25.00	100	0	n/a	0
Portfolio	Assignment # 2, Project portfolio and presentation for an international project using AutoCAD, Excel and Microsoft Project	4	25.00	100	0	n/a	0
Exhibition Evaluation	Assignment # 3 Class visit to a design practice, interview designers and drafting technicians, use this information to develop a business idea	5	25.00	100	0	n/a	0
Continuous Assessment	Assessment # 4 Compile a basic road design and prepare a set of contract documents using Civil CAD 3D	1,2,3,4,5	25.00	100	0	n/a	0

No Project

No Practical

No End of Module Formal Examination

DKIT reserves the right to alter the nature and timings of assessment

Module Workload & Resources

Workload: Full Time

Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Lecture	No Description	2.00	Every Week	2.00
Practical	No Description	2.00	Every Week	2.00
Total Weekly Learner Workload				4.00
Total Weekly Contact Hours				4.00

Workload: Part Time

Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload
Independent Study	No Description	2.00	Every Week	2.00
Total Weekly Learner Workload				2.00
Total Weekly Contact Hours				0.00

Resources

Recommended Book Resources

Gladfelter, Donnie 2012, *AutoCAD 2013 and AutoCAD LT 2013 [electronic resource] : no experience required*, John Wiley & Sons, Indianapolis [ISBN: [ISBN:9781118411261 (E-BOOK)]]

George Omura ; with Rick Graham., 2011, *Mastering AutoCAD 2012 and AutoCAD LT 2012 [electronic resource]*, 1st ed Ed., Wiley Pub., San Francisco, Calif. : [ISBN: [ISBN:9780470952887 (PBK.)]]

Eric Chappell. 2012, *AutoCAD civil 3D essentials [electronic resource]*, 1st ed. Ed., John Wiley & Sons, Indianapolis [ISBN: 9781118333235 (E-BOOK)]

Richard Graham, Louisa Holland. 2011, *Mastering AutoCAD Civil 3D 2012 [electronic resource]*, Wiley Pub., Inc Indianapolis, [ISBN: 9781118124499 (E-BOOK)]

Rodolfo Ambriz and John White 2011, *Dynamic scheduling with Microsoft Project 2010 [electronic resource] : the book by and for professionals*, J. Ross Pub., Ft. Lauderdale, Fla [ISBN: 9781607277118 (E-BOOK)]

Robert Happy. 2010, *Microsoft Project 2010 project management [electronic resource] : real world skills for MOS certification and beyond*, 1st Ed., Wiley Technology Publishing Indianapolis, Ind [ISBN: 9780470917169]

John Walkenbach 2010, *Excel 2010 bible [electronic resource]*, Wiley Pub., Inc., Indianapolis, Ind [ISBN: 9780470634745 (E-BOOK)]

This module does not have any article/paper resources

This module does not have any other resources

Module Delivered in

Programme Code	Programme	Semester	Delivery
DK_ECIVL_7	Bachelor of Engineering in Civil Engineering	3	Mandatory