



**Mathematics 421 / 423      Complex Analysis I / Honours Complex Analysis I**

(see Section 3.5C of Faculty of Science [www.ucalgary.ca/pubs/calendar/current/sc-3-5.html](http://www.ucalgary.ca/pubs/calendar/current/sc-3-5.html)  
and Course Descriptions: <http://www.ucalgary.ca/pubs/calendar/current/course-main.html>)

*Syllabus*

<u>Topics</u>	<u>Number of Hours</u>
Complex Numbers	3
Analytic Functions	4
Elementary Functions	3
Line Integrals	2
The Cauchy Theorem	4
The Cauchy Integral Formula	3
Taylor-Series and Laurent Series	4
Singularities	3
The Residue Theorem	3
Evaluation of Improper Real Integrals	4
Elementary Conformal Mapping, Linear Fractional Transformation	3
<b>TOTAL HOURS</b>	<b>36</b>

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2002:07:01 (as PMAT 421)  
Prerequisite change: 2009:07:01 (as PMAT 421)  
Name change/Description change/combined with Math 423 2012:07:01  
WEC:jml