

Optical Interferometry and Metrology

CACT 105 Tuesday 6 – 9 pm

Instructors: **Donn Silberman & Jeff Padgett**

donn@oisc.net & jeff.padgett@earthlink.net

Textbook – Field Guide to Interferometric Optical Testing, Goodwin & Wyant (SPIE Press)

Additional handouts from instructor

Students will only be responsible for material covered in class, lab & homework – not all material in the text.

This class will be 20-25% lecture and 75-80% Hands-on lab.

Knowledge of basic algebra and trig will help students understand this technology.

Math assistance will be provided in the form of review material.

Week	Dates	Lecture Topic	Text Ch.	Lab	Lab Topic	Comments
1	Sept 11	Fund. of Interferometry	1			
2	Sept 18	Interferometers	2			Donn out
3	Sept 25	Interferograms	3			
4	Oct 2	Interferograms	3			
5	Oct 9	Phase Shifting	4			
6	Oct 16	Phase Shifting	4			
7	Oct 23	Surface Microstructure	5			
8	Oct 30	Review / Midterm				
9	Nov 6	Flat Surface Testing	6			
10	Nov 13	Curved Surface Testing	7			
11	Nov 20	Curved Surface Testing	7			
12	Nov 27	Absolute Measurements	8			
13	Dec 4	Asphere Testing	9			
14	Dec 11	Other optical testing	10			
15	Dec 18	Review / Final				

GRADING POLICY

Grades will be traditionally letter based ‘A’ being the highest and ‘F’ being failing.

Each student must hand in their own original homework and lab reports.

See Irvine Valley College Academic Honesty and Dishonesty Policy

‘A’ will be 90% and higher

‘B’ will be 80% to 89%

‘C’ will be 70% to 79%

‘D’ will be 60% to 69%

‘F’ will be 59% and below.

Grade breakdown will be as follows:

Homework will count for 20%

Labwork will count for 50%

MidTerm will count for 15%

Final Exam will count for 15%

Other grading arrangements can be discussed with the instructor and CACT Director Larry DeShazer.

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