

1. ANATOMY OF THE EYE

1. Cornea
2. Iris
3. Lens
4. Retina

2. VISUAL ACUITY

20/20 vision means that you can see at 20 feet what a normal eye can see at 20 feet.
20/40 vision means that you can see at 20 feet what a normal eye can see at 40 feet.
20/60 vision means that you can see at 20 feet what a normal eye can see at 60 feet.
20/80 vision means that you can see at 20 feet what a normal eye can see at 80 feet.
20/100 vision means that you can see at 20 feet what a normal eye can see at 100 feet.

3. REFRACTION OF THE EYE

3.1 Myopia (Nearsightedness)
3.2 Hyperopia (Farsightedness)
3.3 Astigmatism
3.4 Presbyopia (Age-related farsightedness)

4. OPTICAL OPTIMIZATION

4.1 Snell's Law
4.2 Lensmaker's Equation
4.3 Thin Lens Equation

5. LIGHT PROPAGATION

5.1 Reflection
5.2 Refraction
5.3 Dispersion
5.4 Total Internal Reflection

6. OPTICAL SYSTEMS

6.1 Lenses
6.2 Mirrors
6.3 Fiber Optics
6.4 Optical Instruments

7. OPTICAL MATERIALS

7.1 Glass
7.2 Plastic
7.3 Crystals
7.4 Polymers
7.5 Nanomaterials

8. OPTICAL MEASUREMENTS

8.1 Intensity
8.2 Phase
8.3 Polarization
8.4 Coherence

9. OPTICAL INSTRUMENTS AND APPLICATIONS

9.1 Microscopes
9.2 Telescopes
9.3 Spectrometers
9.4 Lasers
9.5 Fiber Optic Communications
9.6 Optical Sensors

10. OPTICAL DESIGN AND OPTIMIZATION

10.1 Ray Tracing
10.2 Aberrations
10.3 Optimization Algorithms

10.4 Optical Design Software

APPENDIX A: MATHEMATICS

A.1 Trigonometry

A.2 Calculus

A.3 Algebra

A.4 Statistics

A.5 Matrix Algebra

APPENDIX B: REFERENCES

B.1 Textbooks

B.2 Research Papers

B.3 Online Resources



**Southwestern University of Health Plans Services
COST-Benefit and PERFORMANCE**

Course Number:
DATE CLASSIFICATION GRADE

Residence: _____



Original Building



PROFIT	STOCKS & BONDS	SAVING	INSURANCE
1000	1000	1000	1000
2000	2000	2000	2000
3000	3000	3000	3000
4000	4000	4000	4000
5000	5000	5000	5000
6000	6000	6000	6000
7000	7000	7000	7000
8000	8000	8000	8000
9000	9000	9000	9000
10000	10000	10000	10000



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New York University