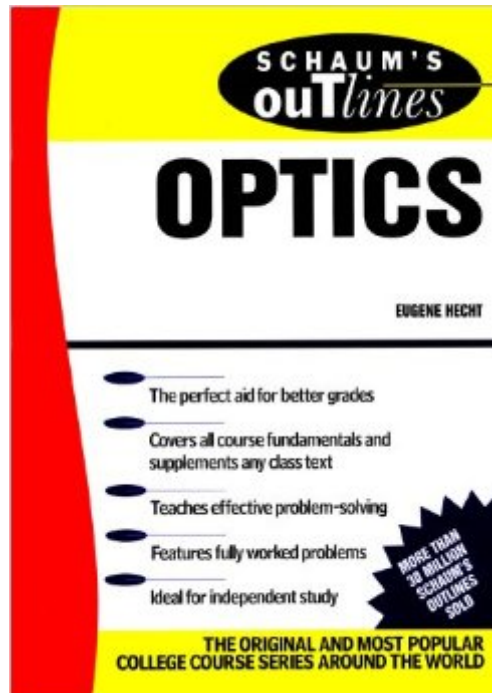


The book was found

# Schaum's Outline Of Optics (Schaum's Outlines)



## Synopsis

Confusing Textbooks? Missed Lectures? Not Enough Time? Fortunately for you, there's Schaum's Outlines. More than 40 million students have trusted Schaum's to help them succeed in the classroom and on exams. Schaum's is the key to faster learning and higher grades in every subject. Each Outline presents all the essential course information in an easy-to-follow, topic-by-topic format. You also get hundreds of examples, solved problems, and practice exercises to test your skills. This Schaum's Outline gives you Practice problems with full explanations that reinforce knowledge Coverage of the most up-to-date developments in your course field In-depth review of practices and applications Fully compatible with your classroom text, Schaum's highlights all the important facts you need to know. Use Schaum's to shorten your study time-and get your best test scores!

Schaum's Outlines-Problem Solved.

## Book Information

File Size: 61512 KB

Print Length: 249 pages

Page Numbers Source ISBN: 0070277303

Publisher: McGraw-Hill Education; 1 edition (November 22, 1974)

Publication Date: November 22, 1974

Sold by: Digital Services LLC

Language: English

ASIN: B00A15ZOEG

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Enabled

Lending: Not Enabled

Enhanced Typesetting: Enabled

Best Sellers Rank: #570,487 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #10

in Kindle Store > Kindle eBooks > Engineering & Transportation > Engineering > Electrical &

Electronics > Optics > Optoelectronics #62 in Books > Engineering & Transportation >

Engineering > Electrical & Electronics > Electronics > Optoelectronics #297 in Kindle Store >

Kindle eBooks > Engineering & Transportation > Engineering > Electrical & Electronics >

Electronics

## Customer Reviews

Hecht is one of the premier instructors and authors on the subject of optics and his contribution to Schaum's is no exception! I used this book to teach myself the fundamentals of optics while working in an applied physics laboratory. Very clearly presented material

This Schaum's outline is better than the expensive textbook by the same author on the same subject in many ways, and in my opinion stands alone as a guide on optics. It gets to the meat of optics via solving problems that range from simple to difficult, which is particularly attractive to engineers learning or reviewing this subject. To me, the only chapters that seemed a bit confusing were the first two on wave motion and on electromagnetic waves and photons. For that material you may need to consult another source. From that point onward, however, the outline couldn't be any better. The outline even has a chapter that introduces Fourier optics. This outline would make an excellent review or supplement for someone taking a course in Photonics that uses Saleh's "Fundamentals of Photonics". That textbook has virtually no solved problems in it whatsoever, and the first third of the book follows the material covered in this outline nicely.

I used this book as a supplement for a course in Physical Optics, mainly to get practice in solving problems. I found the chapters on Polarization and Diffraction very useful. This book helped me get a better grade in this course. This book does not cover the topics like Jones and Coherence Matrix and Stokes vector. However these topics are covered well in the same author's Optics text. BTW, The Optics text is also very good. Solving problems in this book and then approaching the text gives a much better understanding of Optics. This book does not cover Poincare' sphere, which is also an important topic for which we cant find material anywhere except our Professor's lecture notes. Overall, this book is a must if you are taking any Optics course or the GRE physics text or if you just want to master the basics of Optics.

I bought Theory and Problems of Optics to familiarize myself with beginning optics and Fourier series. I rate it high because all the problems are solved, which makes it much easier to figure out things that one doesn't understand at first. (My hobby horse --- I don't understand why mathematicians think one can't learn unless the answers are withheld.) I agree with the reviewer who found the first two chapters confusing. I think this is partly because the notation is introduced haphazardly and not well explained. I would have found a list such as the following to be helpful. Small initial letters in Greek letter names indicate lower case Greek letters. Upsilon and phi are the curly forms.  $k$  is the propagation number,  $2\pi/\lambda$ .  $\lambda$  is the wave length or spatial period.  $\tau$

is the temporal period,  $\lambda / v$  or  $1/\nu$ .  $\nu$  is the frequency, number of waves per unit time, usually Hz.  $\omega$  is the angular frequency,  $2\pi/\tau$ , radians per sec.  $v$  (easily confused with  $\nu$ ) is the speed of propagation or phase velocity.  $\phi$  is the phase, argument of the sine function;  $\phi = kx \pm \omega t$  is time  $\epsilon$  is initial phase;  $\phi = kx \pm \omega t + \epsilon$  Confusion may also arise from the fact that the functions in the first two chapters contain variables for both space ( $x$ ) and time ( $t$ ). More explanation of why might have helped, but one can plot the functions on these variables to determine their meaning.

In short: as one would expect from Schaum. In some details: optics well separated in chapters, chapters well covered with examples and exercises of different difficulty. Excellent introductory handbook for optics.

This is a perfect supplement to the Optics book by Hecht. Taking a senior optics class at UTD and the Schaum's book had some really good key examples to help with HW, concepts in general. Highly recommended

This book did not work for me as my professor was teaching wave optics exclusively. From what I can tell this book is good for geometrical optics.

This is a great book for somebody who wants to learn basics and get a feeling about optics. Helped me with the exam too.

[Download to continue reading...](#)

Schaum's Outline of Optics (Schaum's Outlines) Handbook of Optics, Third Edition Volume V: Atmospheric Optics, Modulators, Fiber Optics, X-Ray and Neutron Optics Schaum's Outline of Programming With Fortran 77 (Schaum's Outlines) Schaum's Outline of Strength of Materials, 6th Edition (Schaum's Outlines) Schaum's Outline of Basic Circuit Analysis, Second Edition (Schaum's Outlines) Schaum's Outline of Basic Electricity, Second Edition (Schaum's Outlines) Schaum's Outline of Operations Research (Schaum's Outlines) Schaum's Outline of Geometry, 5th Edition: 665 Solved Problems + 25 Videos (Schaum's Outlines) Schaum's Outline of Basic Mathematics with Applications to Science and Technology, 2ed (Schaum's Outlines) Schaum's Outline of Fluid Mechanics and Hydraulics, 4th Edition (Schaum's Outlines) Schaum's Outline of Microbiology, Second Edition (Schaum's Outlines) Schaum's Outline of Logic, Second Edition (Schaum's Outlines) Schaum's Outline of Organic Chemistry: 1,806 Solved Problems + 24 Videos (Schaum's

Outlines) Schaum's Outline of Mathematics for Nurses (Schaum's Outlines) Schaum's Outline of Advanced Mathematics for Engineers and Scientists (Schaum's Outlines) Schaum's Outline of Calculus, 6th Edition: 1,105 Solved Problems + 30 Videos (Schaum's Outlines) Schaum's Outline of Fourier Analysis with Applications to Boundary Value Problems (Schaum's Outlines) Schaum's Outline of Advanced Calculus, Third Edition (Schaum's Outlines) Schaum's Outline of Matrix Operations (Schaum's Outlines) Schaum's Outline of Precalculus, 3rd Edition: 738 Solved Problems + 30 Videos (Schaum's Outlines)

[Dmca](#)