

## Midterm Prep

Essentials: Identify the topics, then use the Right study materials

### Topics Covered Include:

- Subnetting!
- Network architecture
- IPv6, including SLAAC, DHCPv6 stateless & stateful
- OSPF theory of operation; single area; multi-area
- OSPFv2 details, including configuration
- OSPFv3 details, including configuration
- Troubleshooting
- Lab skills & knowledge

### Right study materials:

1. For high-level overview & really key points: Lecture summary notes
2. Go deeper: slide decks
3. A. Cover all the material: NetAcad online material (don't forget IPv6 in SRWE!)  
B. Know that you've really got everything: ENSA textbook

### What's the difference?

So you're not convinced of the value of digging into NetAcad material, or even buying a hardcover copy of the textbook? Or you're struggling in the course (and possibly worried about failing)?

This course is like a racing car, and the tuition you've paid is the purchase price. Are you going to make the car a flop by putting the cheapest possible gas in the tank, or are you going to get maximum performance by using premium quality jet fuel?

Compared to the cost of the car (tuition), the price of the best quality fuel (price of a textbook) to make it go like blazes, is very little extra.

Please consider the screenshots on the following pages as an example of the difference in coverage between the different sources for course materials.

Then email the Professor when you've decided that you really would like to get a hardcopy textbook after all.

## Minimal

The slide decks are *not* intended or guaranteed to provide complete coverage. They're a great study aid *after* you've gone into greater depth using other materials.


Here's an example: section 12.3.3 on Troubleshooting tools. How much info do you really get? A brief, single sentence description. Keep going and compare with the next two options.

### Troubleshooting Tools

## Hardware Troubleshooting Tools

There are multiple types of hardware troubleshooting tools.

Hardware Tools	Description
Digital Multimeters	Devices measure electrical values of voltage, current, and resistance.
Cable Testers	Handheld devices are designed for testing the various types of data communication cabling.
Cable Analyzers	Multifunctional handheld devices used to test and certify copper and fiber cables.
Portable Network Analyzers	Specialized device used for troubleshooting switched networks and VLANs.
Cisco Prime NAM	Browser-based interface that displays device performance analysis in a switched and routed environment.

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## Good

Here's the same topic 12.3.3 in the online (free) NetAcad material. Technically speaking, it has all the details you need.

It's also great because it has quick, easy online quizzes, videos, and exercises (often PT based). None of the other options has these additional resources. So it really is "good", but you can do much better (see next option).

The screenshot shows a web browser window displaying the Cisco NetAcad content hub. The browser address bar shows the URL <https://contenthub.netacad.com/ensa-dl/12.3.3>. The page header includes the Cisco logo and the text "Enterprise Networking, Security, and Automation v7.02". A navigation menu on the left lists various topics, with "12.3.3 Hardware Troubleshooting Tools" highlighted in green. The main content area is titled "12.3.3 Hardware Troubleshooting Tools" and contains the following text: "There are multiple types of hardware troubleshooting tools." Below this text is a blue information box with a white 'i' icon and the text "Click each button for a detailed description of common hardware troubleshooting tools." Underneath the information box are several blue buttons: "Digital Multimeters", "Cable Testers", "Cable Analyzers", "Portable Network Analyzers", and "Cisco Prime NAM". To the right of the "Cable Analyzers" button is a text block titled "Cable Analyzers" which describes these tools as multifunctional handheld devices used for testing copper and fiber cables. The text explains that more sophisticated tools include advanced diagnostics for near-end crosstalk (NEXT) or return loss (RL), and that they often include PC-based software for data analysis. At the bottom of the page, the next section "12.3.4 Syslog Server as a Troubleshooting Tool" is partially visible.

# Best

As always, the hardcopy textbook is always your best resource. Yes, it costs money but this is definitely a case of You Get What You Pay For.

The screenshot may look a little odd, but it was chosen in order to show that you get more context, more detail, and so it all hangs together better. It's the one resource where you can make study notes on the first pages, last pages, and then in the margins. You can highlight with different colours, then use pen & pencil. You get instant access to those key notes at the front & back pages. The BEST way to study!

