**Outline: Chef Intermediate Course for Near Term Review and Revision**

(This is an outline of the existing course.)

**Things to consider when revising these modules:**

* Is each topic essential for the majority of the Chef Intermediate audience?
* Please use the Notes section below each slide for any:
  + Speaker notes: i.e., what the instructor would say in class. We need these so new instructors have an idea how to elaborate bullet points on each slide.
  + Instructor notes: Tips for other instructors that won’t be seen by students. Steve will hide instructor notes later. Please tag instructor notes with “instructor notes”.
* Don’t worry about PPT formatting. Steve will integrate all content into the proper template and will manage formatting, spelling, grammar, etc.

**Question**: Should there be a Windows version of this course?

Key: **Module name: Assignee**Objectives

1. **Intro/Objectives/Lab setup: Steve Del Fante**

* Intro
* Course objectives
* Agenda/Topics
* Legend
* Training Environment/Cloudshare

1. **Chef Fundamentals Refresher:** 
   * Create a new Organization
   * Manually configure your certificates (.pem files) & knife.rb on your workstation so it can communicate with Chef Server
   * Bulk upload all cookbook, role, environment and data bag files to the Chef Server
   * Setting up environment
   * Bootstrap etc.

1. **Configuring Chef Clients**:
   * chef-client cookbook to Configure nodes to use SSL Certificate Validation
2. **Building Custom Resources:**
   * Describe the components of the Lightweight Resource/Provider (LWRP) framework
   * Explain the Resource DSL
   * Explain the Provider DSL
   * Build a resource and provider from scratch Look at examples of other LWRPs, data bags.) SD: This is a long module…almost 60 slides.
3. **chef-shell - The Chef Debugger:**
   * Use chef-shell, the interactive Chef console (REPL)
   * List chef-shell’s execution contexts
   * Use chef-shell to inspect and debug recipes
   * Interact with a Chef Server API
   * Discuss the magic that is knife exec
4. **Writing Ohai Plugins:**
   * Explain the function Ohai and Ohai Plugins
   * Explain what’s new in Ohai 7
   * Write your own Ohai Plugins
   * Force Ohai Plugins to run
   * Disable Ohai Plugins
5. **Chef Client Run Internals:**
   * Explain what happens under the hood when Chef Client runs
   * Describe the purpose of the run\_context and run\_status objects
   * Use node.run\_state to pass information around the recipe at execution time
   * Describe the event subsystem and how it can be used.
6. **Implementing Chef Handlers:**
   * Describe Chef handlers
   * Write custom report handlers
   * Distribute handlers to nodes
   * Configure Chef to use custom handlers
7. **Cookbook Style & Correctness:**
   * Explain the benefits of correctness checking your cookbooks
   * Explain how and why you should test your cookbooks
   * Use Foodcritic to check the validity of your cookbooks
   * Verify your code adheres to the community Ruby style guide by using Rubocop

SD: This is a very short module (8 slides)

1. **Foodcritic:**
   * No objectives but topics are:
   * Install Foodcritic
   * Check cookbook correctness with Foodcritic
   * Narrow the tests
   * Fix the cookbook to clear the errors
   * Running certain tests
2. **Rubocop:**
   * No objectives but topics are:
   * Install RuboCop
   * Run Rubocop on Parent Directory
   * Run Rubocop on Apache
   * Understanding the Output
   * Create a boilerplate .rubocop.yml
   * Run Rubocop
   * Make corrections in offending file
3. **An Introduction to ChefSpec:**
   * Explain what unit testing means for Chef cookbooks and recipes
   * Explain why to write unit tests for Chef recipes
   * Use ChefSpec to create and manage a test suite for your cookbooks
4. **Further Resources:**
   * No objectives

Intermediate Course Issues

<https://github.com/chef-training/chef-intermediate/issues>

Thank you for your help!

**Steve Del Fante** — Curriculum Develolper

425-231-9916 – [sdelfante@chef.io](mailto:sdelfante@chef.io)

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