**Course schedule and assignments**

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| **DATE** | **TOPIC** | **ASSIGNMENTS DUE** |
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| **WEEK 1 — Course overview and setting the stage** | | |
| Thursday, 18 Jan | Syllabus; class expectations |  |
| Thursday lab | Team formation; begin work on *Group Project #1* | |
| **WEEK 2 — When IT fails** | | |
| Tuesday, 23 Jan | The modern IT team; what is IT service delivery? | Reading: *The Phoenix Project*, ch. 1–8 |
| Thursday, 25 Jan | Theory of constraints; wait/busy times; the four types of work | Reading: *The Phoenix Project*, ch. 9–16 |
| Thursday lab | ERFA Week 2 | |
| **WEEK 3 — Rethinking IT service delivery** | | |
| Tuesday, 30 Jan | The three ways; guarding constraints | Reading: *The Phoenix Project*, ch. 17–26  Exercise*:* **Group Project #1** |
| Thursday, 1 Feb | Total systems thinking; the improvement kata | Reading: *The Phoenix Project*, ch. 27–35 |
| Thursday lab | VirtualBox, Vagrant, and the Linux command line  Video courses in ***TCMG 476*** playlist on Lynda.com — [**http://goo.gl/NPUqWA**](http://goo.gl/NPUqWA) | |
| Sunday, 4 Feb | ERFA Week 3 | |
| **WEEK 4 — What is DevOps?** | | |
| Tuesday, 6 Feb | Introducing terms; DevOps as folk model; the history of DevOps; *Introducing Slack* | Reading: *Effective DevOps*, ch. 1–3 |
| Thursday, 8 Feb | Foundational concepts; misconceptions and anti-patterns; the 4 pillars of DevOps | Reading: *Effective DevOps*, ch. 4–6 |
| Thursday lab | Version control systems, git, and GitHub.com  Lynda.com — [**http://goo.gl/NPUqWA**](http://goo.gl/NPUqWA) | |
| Sunday, 11 Feb | ERFA Week 4 | |
| **WEEK 5 — Collaboration: Individuals working together** | | |
| Tuesday, 13 Feb | *Guest lecture*: Benjamin Liles, Site Reliability Engineer at Google *(and Google recruiters)* |  |
| Thursday, 15 Feb | Pillar 1: collaboration; individuals and the group; conflict resolution; trust and empathy | Reading: *Effective DevOps*, ch. 7–8 |
| Thursday lab | Work on *Group Project #2* | |
| Sunday, 18 Feb | ERFA Week 5 | |

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| **WEEK 6 — Affinity: from individuals to teams** | | |
| Tuesday, 20 Feb | Pillar 2: affinity; team culture/cohesion; diversity; hiring; org structure | Reading: *Effective DevOps*, ch. 9 |
| Thursday, 22 Feb | Affinity misconceptions and troubleshooting | Reading: *Effective DevOps*, ch. 10  Exercise*:* **Group Project #2** |
| Thursday lab | Programming basics: The Python language  Lynda.com —[**http://goo.gl/NPUqWA**](http://goo.gl/NPUqWA) | |
| Sunday, 25 Feb | ERFA Week 6 | |
| **WEEK 7 — Team building** | | |
| Tuesday, 27 Feb | Working with a dysfunctional team; the importance of trust; stages of team development; teams and sports | Reading: *The Five Dysfunctions of a Team*, ch. 1-26 |
| Thursday, 1 Mar | Conflict-avoidance; commitment; accountability; inattention to results | Reading: *The Five Dysfunctions of a Team*, ch. 27-44 |
| Thursday lab | Python next steps and tutorial; Work on *Group Project #3* | |
| Sunday, 4 Mar | ERFA Week 7 | |
| **WEEK 8 — Tools: accelerators of culture** | | |
| Tuesday, 6 Mar | Pillar 3: tools (*Automate all the things!)*; development; automation; monitoring; how tools affect culture | Reading: *Effective DevOps*, ch. 11-12 |
| Thursday, 8 Mar | Tools misconceptions and troubleshooting | Reading: *Effective DevOps*, ch. 13  Exercise*:* **Group Project #3** |
| Thursday lab | Containerization and Docker  *Docker Basics* on Lynda.com — [**http://goo.gl/NPUqWA**](http://goo.gl/NPUqWA)  *Fundamentals* and *Operations* from https://training.docker.com/self-paced-training | |
| Sunday, 11 Mar | ERFA Week 8 | |
| **WEEK 9 — Scaling and preparing for growth** | | |
| Tuesday, 20 Mar | Understanding scaling; effect on technology; effect on teams and organizations | Reading: *Effective DevOps*, ch. 14–15 |
| Thursday, 22 Mar | Guest lecture |  |
| Sunday, 25 Mar | ERFA Week 9 | |
| **WEEK 10 — Automation is key** | | |
| Tuesday, 27 Mar | *Guest lecture*: *Linux systems automation with Chef* by Blake Dworaczyk, Linux Systems Engineer for TAMU College of Engineering |  |
| Thursday, 29 Mar | Learning automation with *Chef*  Online tutorials from [**https://learn.chef.io/**](http://learn.chef.io/)  *Assigned*: New to Chef; Learn the basics; Manage a node; Develop locally | |
| Thursday Lab | Work on *Group Project #4* | |
| Sunday, 1 Apr | ERFA Week 10 | |

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| **WEEK 11 — The Lean Enterprise** | | |
| Tuesday, 3 Apr | The improvement katas; continuous process innovation | Reading: *Lean Enterprise*, ch. 6 |
| Thursday, 5 Apr | Kanban and agile; lean manufacturing | Reading: Selections from *Kanban (Anderson)* |
| Thursday lab | Learning automation with *Chef*  Online tutorials from https://learn.chef.io/ — *Manage a basic web application* | |
| Sunday, 8 Apr | ERFA Week 11 | |
| **WEEK 12 — DevOps is Culture** | | |
| Tuesday, 10 Apr | Understanding culture: values, prohibitions, myths, rituals, shared knowledge | Reading: *Effective DevOps*, ch. 16-17 |
| Thursday, 12 Apr | Putting everything together; systems health | Reading: *Effective DevOps*, ch. 18  Exercise*:* **Group Project #4** |
| Thursday lab | Learning automation with *Chef*  Online tutorials from https://learn.chef.io/  Continuous delivery and build automation: *Get started with Chef Automate* | |
| Sunday, 15 Apr | ERFA Week 12 | |
| **WEEK 13 — On leadership** | | |
| Tuesday, 17 Apr | *Guest lecture*: Col. Byron Stebbins, Chief of Staff for Texas A&M Corp of Cadets |  |
| Thursday, 19 Apr | Postmortems and just culture; Cynefin framework; prioritizing team growth over feelings | Reading: *Beyond Blame*, all chapters |
| Sunday, 22 Apr |  |  |
| **WEEK 14 — Blame-free culture; thinking about business value** | | |
| Tuesday, 24 Apr | Psychological biases; conducting a postmortem | Reading: *The Human side of Postmortems* |
| Thursday, 26 Apr | What is business value? Who decides? | Reading: *The Art of Business Value*  Exercise: **Group Project #5** |
| Thursday lab | Present *Group Project #5* | |
| Sunday, 29 Apr |  | |
| **FINAL EXAM — Friday, May 3 @ 3:00—5:00pm** | | |