

Course schedule and assignments

DATE	TOPIC	ASSIGNMENTS DUE
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: <i>The Phoenix Project</i>, ch. 1–8
Thursday, 25 Jan	Theory of constraints; wait/busy times; the four types of work	Reading: <i>The Phoenix Project</i>, ch. 9–16
Thursday lab	ERFA Week 2	
WEEK 3 — Rethinking IT service delivery		
Tuesday, 30 Jan	The three ways; guarding constraints	Reading: <i>The Phoenix Project</i>, ch. 17–26 Exercise: Group Project #1
Thursday, 1 Feb	Total systems thinking; the improvement kata	Reading: <i>The Phoenix Project</i>, 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	
Sunday, 4 Feb	ERFA Week 3	
WEEK 4 — What is DevOps?		
Tuesday, 6 Feb	Introducing terms; DevOps as folk model; the history of DevOps; <i>Introducing Slack</i>	Reading: <i>Effective DevOps</i>, ch. 1–3
Thursday, 8 Feb	Foundational concepts; misconceptions and anti-patterns; the 4 pillars of DevOps	Reading: <i>Effective DevOps</i>, ch. 4–6
Thursday lab	Version control systems, git, and GitHub.com Lynda.com — 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: <i>Effective DevOps</i>, ch. 7–8
Thursday lab	Work on Group Project #2	
Sunday, 18 Feb	ERFA Week 5	

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

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