

Plano de Estudo para o Exame CKA

Dia 1: Introdução e Configuração do Ambiente de Estudo

Configuração do Ambiente: [Minikube](<https://minikube.sigs.k8s.io/docs/start/>), [Kubernetes em VM](<https://kubernetes.io/docs/setup/production-environment/tools/kubeadm/install-kubeadm/>)

Familiarização com `kubectl`: [kubectl overview](<https://kubernetes.io/docs/reference/kubectl/overview/>)

Dia 2: Core Concepts (19%)

Namespaces:

[Namespaces](<https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/>)

Pods: [Pods](<https://kubernetes.io/docs/concepts/workloads/pods/>)

Replication Controllers e ReplicaSets: [Replication Controllers](<https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller/>), [ReplicaSets](<https://kubernetes.io/docs/concepts/workloads/controllers/replicaset/>)

Dia 3: Core Concepts (19%)

Deployments:

[Deployments](<https://kubernetes.io/docs/concepts/workloads/controllers/deployment/>)

Services: [Services](<https://kubernetes.io/docs/concepts/services-networking/service/>)

Dia 4: Gerenciamento de Deployments (20%)

ConfigMaps e Secrets: [ConfigMaps](<https://kubernetes.io/docs/concepts/configuration/configmap/>), [Secrets](<https://kubernetes.io/docs/concepts/configuration/secret/>)

Ingress Controllers: [Ingress](<https://kubernetes.io/docs/concepts/services-networking/ingress/>)

Network Policies: [Network Policies](<https://kubernetes.io/docs/concepts/services-networking/network-policies/>)

Dia 5: Gerenciamento de Deployments (20%)

DaemonSets: [DaemonSets](https://kubernetes.io/docs/concepts/workloads/controllers/daemonset/)

StatefulSets: [StatefulSets](https://kubernetes.io/docs/concepts/workloads/controllers/statefulset/)

Job e CronJob: [Jobs](https://kubernetes.io/docs/concepts/workloads/controllers/job/),
[CronJobs](https://kubernetes.io/docs/concepts/workloads/controllers/cron-jobs/)

Dia 6: Gerenciamento de Clusters (25%)

Noções Básicas de Cluster: [Cluster Components](https://kubernetes.io/docs/concepts/overview/components/)

API Server: [API Server](https://kubernetes.io/docs/reference/command-line-tools-reference/kube-apiserver/)

Etc: [Etc](https://kubernetes.io/docs/tasks/administer-cluster/configure-upgrade-etcd/)

Dia 7: Gerenciamento de Clusters (25%)

Scheduler:

[Scheduler](https://kubernetes.io/docs/reference/command-line-tools-reference/kube-scheduler/)

Controller Manager: [Controller Manager](https://kubernetes.io/docs/reference/command-line-tools-reference/kube-controller-manager/)

Node Management: [Nodes](https://kubernetes.io/docs/concepts/architecture/nodes/)

Dia 8: Configuração (15%)

Configuração de Segurança: [RBAC](https://kubernetes.io/docs/reference/access-authn-authz/rbac/)

Network Plugins: [Network Plugins](https://kubernetes.io/docs/concepts/extend-kubernetes/compute-storage-net/network-plugins/)

Persistent Volumes: [Persistent Volumes](https://kubernetes.io/docs/concepts/storage/persistent-volumes/)

Dia 9: Configuração (15%)

Configuração de CNI: [Container Network Interface](https://kubernetes.io/docs/concepts/extend-kubernetes/compute-storage-net/network-plugins/#cni)

Configuração de CSI: [Container Storage Interface](https://kubernetes.io/docs/concepts/storage/volume-types/#csi)

Certificados e SSL: [TLS](https://kubernetes.io/docs/tasks/tls/managing-tls-in-a-cluster/)

Dia 10: Manutenção de Clusters (11%)

Atualização do Cluster: [Cluster Upgrade](https://kubernetes.io/docs/tasks/administer-cluster/cluster-management/#upgrading-a-cluster)

Backup e Restore: [Backup and Restore](https://kubernetes.io/docs/tasks/administer-cluster/configure-backup-restore/)

Monitoramento:

[Monitoring](https://kubernetes.io/docs/tasks/debug/debug-cluster/resource-usage-monitoring/)

Dia 11: Manutenção de Clusters (11%)

Logs e Diagnóstico: [Logging](https://kubernetes.io/docs/concepts/cluster-administration/logging/)

Planos de Recuperação: [Disaster Recovery](https://kubernetes.io/docs/tasks/disaster-recovery/)

Ferramentas de Manutenção: [kubeadm](https://kubernetes.io/docs/reference/setup-tools/kubeadm/), [kubectl](https://kubernetes.io/docs/reference/kubectl/overview/)

Dia 12: Solução de Problemas (10%)

Resolução de Problemas de Deployments: [Troubleshooting Applications](https://kubernetes.io/docs/tasks/debug/debug-application/)

Resolução de Problemas de Networking: [Troubleshooting

Network](https://kubernetes.io/docs/tasks/debug/debug-application/debug-service/)

Dia 13: Solução de Problemas (10%)

Logs e Eventos: [kubectl logs](https://kubernetes.io/docs/reference/generated/kubectl/kubectl-commands#logs), [kubectl describe](https://kubernetes.io/docs/reference/generated/kubectl/kubectl-commands#describe)

Ferramentas de Diagnóstico: [kubectl top](https://kubernetes.io/docs/tasks/debug/debug-cluster/resource-usage-monitoring/)

Dia 14: Revisão e Simulados

Revisão Geral: Revisão dos tópicos estudados.

Simulados Práticos: Realize simulados completos para avaliar seu conhecimento e tempo de resposta.