

RANI RASHMONI GREEN UNIVERSITY

TARAKESWAR, HOOGHLY

West Bengal, India

Present Address: Government General Degree College, Singur, P.O.-Singur, Dist.-Hooghly. PIN-712409 Phone-+91 33-2630-0026, Mobile: +91 9046252038

Email: rrgu18@gmail.com, registrarrrgu@gmail.com

Memo No: 288 | RRGU | Notice | 2025

Date: 13/08/2025

### **Notice**

This is to convey to all the stakeholders of the Rani Rashmoni Green University that letter received from Department of Higher Education, University Branch, Government of West Bengal dated August 04, 2025 Vide No: 1002(42)-Edn (U)-HED12016(99)/58/2025- UNV SEC- Deptt. of HE dated 04 August, 2025, as per MoU signed between the Govt. of West Bengal and the Red Hat, during the Bengal Global Business Summit (BGBS). All students are advised to go through the notification which is self-explanatory. Few of Red Hat courses are NSQF-aligned making student to earn academic credits or else, these Red Hat courses may be considered to be embedded voluntarily by the Board of Studies (BoS) and or Academic Council for offering the students as a skill based, elective, minor or major degree programme equivalence to the state academic credit framework.

A brief on the Red Hat training and certification programme is attached for reference.

CHER UNITED BY STATE OF STATE

Registrar 13 108 123 Rani Rashmoni Green University

Sri Tapan Kumar Jana Registrar

Rani Rashmoni Green University Tarakeswar, Hooghly, W.B.-712410, India

#### **ANNEXURE**

# Importance of the Training Program (Bridging the Education-to-Employment Gap):

Despite high youth enrollment in higher education, there is a well-documented gap between academic education and industry requirements in India, and West Bengal is no exception. Employers often find graduates lacking in practical, jobready skills, especially in fast-evolving tech domains. A recent employability assessment showed that only about 42% of Indian graduates are deemed fit for employment in 2024. In other words, over half of graduates are not readily employable, due largely to skill gaps in both technical and soft skills.

### Importance of Cloud and DevOps skills:

- Booming Demand for Cloud Skills: With businesses rapidly moving to cloud infrastructures, cloud computing skills have grown enormously over the past decade. Cloud computing roles are growing ~30% year-over-year; in India alone there were 20,000+ open jobs in cloud-related areas as of August 2024. West Bengal's emerging IT companies and startups will similarly require local cloud expertise. Training graduates in cloud fundamentals ensures they can eventually support data centers, SaaS businesses, and other tech operations that the state is courting. Importantly, Red Hat is the world's leading provider of enterprise open source solutions, so Red Hat skills are highly relevant and valued across companies.
- DevOps Skills Gap in Industry:Modern software companies have widely adopted DevOps practices to accelerate delivery and improve reliability. However, there is a shortage of DevOps-skilled engineers 37% of IT leaders report a lack of DevOps/DevSecOps skills as the top technical skills gap in their teams. This means graduates with DevOps capabilities (automation, CI/CD, container management) are in a prime position to fill high-demand roles. Job postings for DevOps engineers in India have increased by ~40% year-over-year, reflecting strong hiring demand. These roles also command excellent salaries on average a DevOps engineer earns 50–100% more than a basic cloud operations engineer in India. By training in DevOps, West Bengal's graduates can greatly enhance their employability and earning potential, making them attractive hires for incoming tech companies or start-ups.

In summary, industry-aligned training in Linux, Cloud and DevOps is essential to capitalize on West Bengal's educated youth and the government's IT initiatives. It directly tackles the employability gap by equipping graduates with the tools, certifications, and confidence to succeed in modern IT roles. This will help fulfill the dual objective of enhancing individual career prospects and positioning West Bengal as an up-and-coming IT talent hub in India.

## TOP DEVOPS STATISTICS

DevOps Market

Ine LevUps market is expected to grow from an estimated \$10.4 pillion in 2023 to

\$25.5 billion

in 2020.

North America is the largest DevOps market, with 38.5% of the global market in 2023.

33.5%

### DevOps is the most popular process framework

in IT organizations, used by 49% of those surveyed. — DevOps &

DevSecOps

37%

Asked to name in their teams the biggest technical skills gap, 37% of IT leaders said DevOps and DevSecOps.

99%

of organizations that have implemented DevOps have reported positive effects.

The Impact of DevOps

61%

61% of organizations report that
 DevOps has enhanced the quality
 or their deliverables.

Organizations with a DevOps culture can invest 33% more time in infrastructure improvements

spacelift

Proposed Training Programs for integration / embed in West Bengal Institution Curriculum for award of <u>CREDITS</u>: Linux, Cloud and DevOps:

# FOUNDATION SKILLS:

|   | Course Name:       | RH124-Red Hat System Administration-I  |  |  |  |  |  |
|---|--------------------|--|--|--|--|--|--|
|   |                    | Red Hat System Administration I (RH124) is designed for IT professionals without previous Linux system administration experience.  |  |  |  |  |  |
|   | Course description | The course provides students with Linux administration competence by focusing on core administration tasks.  |  |  |  |  |  |
|   |                    | This course also provides a foundation for students who plan to become full-time Linux system administrators by introducing key command-line concepts and enterprise-level tools.  |  |  |  |  |  |
|   |                    | Introduce Linux and the Red Hat Enterprise Linux ecosystem.  |  |  |  |  |  |
| 1 |                    | Run commands and view shell environments.  Manage, organize, and secure files.   |  |  |  |  |  |
|   | Course Content     | Manage users, groups and user security policies.   |  |  |  |  |  |
|   |                    | Control and monitor systemd services.  |  |  |  |  |  |
|   |                    | Configure remote access using the web console and SSH.   |  |  |  |  |  |
|   |                    | Configure network interfaces and settings.   |  |  |  |  |  |
|   |                    | Manage software using DNF  |  |  |  |  |  |
|   |                    | and the second s |  |  |  |  |  |
| 1 | Course Name:       | RH134-Red Hat System Administration-II   |  |  |  |  |  |

| Course description | Red Hat System Administration II (RH134) is the second part of the RHCSA train track for IT professionals who have already attended Red Hat System Administration. The course goes deeper into core Linux system administration skills in storage configuration and management, installation and deployment of Red Hat Enterprise Linux, management of security features such as SELinux, control of recurring systems, management of the boot process and troubleshooting, basic system tuning, and |
|--------------------|--|
|                    | Install Red Hat Enterprise Linux using scalable methods  |
|                    | Access security files, file systems, and networks  |
|                    | Execute shell scripting and automation techniques  |
| Course Content     | Manage storage devices, logical volumes, and file systems  |
|                    | Manage security and system access  |
|                    | Control the boot process and system services   |
|                    | Running containers   |

## CLOUD SKILLS:

|   | Course Name:       | CL110-Red Hat OpenStack Administration I: Core Operations for Domain<br>Operators  |
|---|--------------------|--|
|   |                    | CL110 teaches you how to operate and manage a production Red Hat OpenStack Platform (RHOSP) single-site overcloud.   |
|   | Course description | You will learn how to create secure project environments in which to provision resources and manage security privileges that cloud users need to deploy scalable cloud applications. |
| 1 |                    | You will learn about OpenShift integration with load balancers, identity management, monitoring, proxies, and storage.   |
|   |                    | You will also develop more troubleshooting and Day 2 operations skills in this course.   |
|   |                    | Launch instances to satisfy various use case examples.   |
|   | 3 a                | Manage domains, projects, users, roles, and quota in a multitenant environment.  |
|   | Course Content     | Manage networks, subnets, routers, and floating IP addresses.  |
|   |                    | Manage instance security with group rules and access keys.   |
|   |                    | Create and manage block, object and shared storage within OpenStack.   |

|   |                    | Perform instance launch customization with cloud-init.   |
|---|--------------------|--|
|   |                    | Deploy scalable applications using stack templates.  |
|   | Course Name:       | D0188-Red Hat OpenShift Development I: Introduction to Containers with Podman  |
|   |                    | DO188 introduces students to building, running, and managing containers with Podman and Red Hat OpenShift.   |
|   | Course description | This course helps students build the core skills for developing containerized applications through hands-on experience.  |
|   |                    | These skills can be applied using all versions of OpenShift, including Red Hat OpenShift on AWS (ROSA). Azure Red Hat OpenShift, and OpenShift Container Platform. |
|   |                    | Introduction tocontainers  |
| 2 |                    | Run containers with Podman CLI and Podman Desktop  |
|   |                    | Build custom container images  |
|   | 0.00               | Manage container images  |
|   | Course Content     | Remote debugging with containers   |
|   | 8                  | Basic container networking   |
|   |                    | Persist data with containers   |
|   |                    | Run multi-container applications   |
|   |                    | Troubleshoot Container Deployments   |
|   |                    | Orchestrate containers with OpenShift andKubernetes  |

|   | Course Name:       | DO180-Red Hat OpenShift Administration I: Operating a Production<br>Cluster   |
|---|--------------------|---|
| 3 | Course description | DO180 prepares OpenShift cluster administrators to manage Kubernetes workloads and to collaborate with developers, DevOps engineers, system administrators, and SREs to ensure the availability of application workloads. This course focuses on managing typical end-user applications that are often accessible from a web or mobile UI and that represent most cloudnative and containerized workloads. Managing applications also includes deploying and updating their dependencies, such as databases, messaging, and authentication systems. |
|   |                    | Managing OpenShift clusters from the command-line interface and from the web console  |
|   | Course Content     | Deploying applications on OpenShift from container images, templates, and Kubernetes manifest   |
|   |                    | Troubleshooting network connectivity between applications inside and outside an OpenShift   |

|  | cluster  |
|--|--|
|  | Connecting Kubernetes workloads to storage for application data                            |
|  | Configuring Kubernetes workloads for high availability and reliability                     |
|  | Managing updates to container images, settings, and Kubernetes manifests of an application |

## **DEVELOPER SKILLS:**

| Course Name:      | AD183-Red Hat Application Development I: Programming in<br>Java EE  |  |  |  |  |  |
|-------------------|---|--|--|--|--|--|
| W W               | AD183 exposes experienced Java Standard Edition (Java SE) developers to the world of Java Enterprise Edition (Java EE).   |  |  |  |  |  |
|                   | In this course, you will learn about the various specifications that make u Java EE.  |  |  |  |  |  |
| Course descriptio | Through hands-on labs, you will transform a simple Java SE command line application into a multi-tiered enterprise application using various Java EE specifications, including Enterprise Java Beans, Java Persistence API, Java Messaging Service, JAX-RS for REST services. Contexts and Dependency Injection (CDI), and JAAS for securing the application. |  |  |  |  |  |
| =                 | Generating multi-tiered Java EE applications  |  |  |  |  |  |
|                   | Packaging and deploying Java EE applications  |  |  |  |  |  |
|                   | Creating Enterprise Java Beans, including message-driven beans  |  |  |  |  |  |
| Course Content    | Managing persistence  |  |  |  |  |  |
|                   | Creating REST services with JAX-RS  |  |  |  |  |  |
|                   | Implementing Contexts and Dependency Injection  |  |  |  |  |  |
|                   | Creating messaging applications with JMS .  |  |  |  |  |  |
|                   | Securing Java FE applications with JAAS   |  |  |  |  |  |
| Course Name:      | AD141-Python Programming with Red Hat   |  |  |  |  |  |

| Course description | Python is a popular programming language used by system administrators, data scientists, and developers to create web applications, custom Red Hat Al/ML models. This course introduces the Python language and teaches fundamental concepts like control flow, loops, data structures, functions, file I/O, regular expressions, parsing JSON, and debugging. This course is based on Python 3 and RHEL 9.0. |
|--------------------|---|
|                    | Basics of Python syntax, functions and data types   |
| 2 .                | How to debug Python scripts using the Python debugger (pdb)   |
|                    | Use Python data structures like dictionaries, sets, tuples and lists to handle compound data  |
| Course Content     | Learn Object-oriented programming in Python and Exception Handling  |
|                    | How to read and write files in Python and parse JSON data   |
|                    | Use powerful regular expressions in Python to manipulate text   |
|                    | How to effectively structure large Python programs using modules and namespaces   |
| 8                  | How to use third-party libraries using the pip CLI tool.  |

### COMMERCIALS

- The hours mentioned in Duration (hours) is minimum to maximum duration of the course recommended by Red Hat, but exact duration hours to be decided by the Institution ranging within these min to max.
- The no. of learners mentioned in Minimum Batch Size (# of students) is the recommended batch size by Red Hat
  to have effective learning and experience for the learners.

|            |                  |               | Per Learner Price (INR) Exci<br>Taxes |                     |   |                              |   |                |  |
|------------|------------------|---------------|---------------------------------------|---------------------|---|------------------------------|---|----------------|--|
| SI.<br>No. | Course Name      | Course<br>SKU | Delivery<br>Modality                  | Duration<br>(Hours) | Minimum<br>Batch Size<br>(No. of<br>Learners) | Total Batches (Slab<br>wise) | Total No. of<br>enrolled Student<br>(Slab wise) | Standard Price | Special Price for<br>West Bengal<br>Department of HE |
| 1          | Red Hat System   | RH124         | Virtual Real                          | 40 - 64             | 35 - 50                                       | 1 to 20                      | 50 to 1000                                      | ₹40,000        | ₹28,000  |
|            | Administration - |               | Time                                  |                     |   | 21 to 50                     | 1050 to 2500                                    | 140,000        | ₹26,154  |

| 100  | troduction to<br>ython                       | AD141     | Virtual Real   | 40 - 64   | 35 - 50 | 1 to 20    | 50 to 1000      | ₹32,000     | ₹22,400 |
|------|--|-----------|----------------|-----------|---------|------------|-----------------|-------------|---------|
|      |  |           |                |           |         | 101 to 500 | 5050 to 25000   |             | ₹36,667 |
| C    | Containers<br>& Kubernetes                   | #6        | Time           |           |         | 51 to 100  | 2550 to 5000    | 30,000      | ₹38,000 |
| C    | Red Hat<br>OpenShift<br>Administration F     | 00190     | Virtual Real   | 40 - 64   | 35 - 50 | 21 to 50   | 1050 to 2500    | ₹60,000     | ₹39,231 |
|      |  |           |                |           |         | 1 to 20    | 50 to 1000      |             | ₹42,000 |
|      |  |           |                |           |         | 101 to 500 | 5050 to 25000   |             | ₹27,500 |
|      | Introduction to<br>Containers with<br>Podman |           | Time           |           | 35 - 50 | 51 to 100  | 2550 to 5000    | ₹45,000     | ₹28,500 |
| -    | Red Hat<br>OpenShift<br>Development I:       | DO188     | Virtual Real   | . 32 - 96 |         | 21 to 50   | 1050 to 2500    |             | ₹29,423 |
|      | •  |           |                |           |         | 1 to 20    | 50 to 1000      |             | ₹31,500 |
|      | *  |           |                |           |         | 101 to 500 | 5050 to 25000   |             | ₹24,444 |
| - 11 | Core Operations<br>for Domain<br>Operators   |           | Time           |           |         | 51 to 100  | 2550 to 5000    | (40,000     | ₹25,333 |
| 4    | Red Hat<br>OpenStack<br>Administration I     |           | Virtual Real   | 40 - 64   | 35 - 50 | 21 to 50   | 1050 to 2500    | ₹40,000     | ₹26,15  |
|      | (RHCSA) Rapid<br>Track                       |           |                | 40 - 96   |         | 1 to 20    | 50 to 1000      |             | ₹28,00  |
|      |  |           | 8 8            |           | Y       | 101 to 500 | · 5050 to 25000 |             | ₹24,44  |
| J    |  |           | Time           |           | 33 - 30 | 51 to 100  | 2550 to 5000    | . ₹40,000 _ | ₹25,33  |
| 3    | Red Hat<br>Certified Syster<br>Administrator | n<br>ŘH19 | o Virtual Real |           | 35 - 50 | 21 to 50   | 1050 to 2500    | ₹40,000     | ₹26,15  |
|      |  | -:        |                |           |         | 1 to 20    | 50 to 1000      |             | ₹28,00  |
|      |  |           |                |           | 4:      | 101 to 500 | 5050 to 25000   |             | ₹24,44  |
| 4    | Red Hat System<br>Administration             | -II RH13  | Time           | 40 - 64   | 35 - 5  | 51 to 100  | 2550 to 5000    | ₹40,000     | ₹25,33  |
| 2    |  | n Duar    | Virtual Real   |           |         | 21 to 50   | 1050 to 2500    |             | ₹26,15  |
|      |  |           |                |           |         | 1 to 20    | 50 to 1000      |             | ₹28,00  |
|      |  |           |                |           |         | 101 to 500 | 5050 to 25000   | )           | ₹24,44  |
|      |  | 0         |                |           |         | 51 to 100  | 2550 to 5000    |             | ₹25,33  |

|   | Programming with Red Hat                 |       | Time         |         |           | 21 to 50   | 1050 to 2500  |                | ₹20,923 |
|---|--|-------|--------------|---------|-----------|------------|---------------|----------------|---------|
|   |  |       |              |         |           | 51 to 100  | 2550 to 5000  |                | ₹20,267 |
|   |  |       |              |         |           | 101 to 500 | 5050 to 25000 |                | ₹19,556 |
|   |  |       |              | 40 - 96 | 35 - 50 _ | 1 to 20    | 50 to 1000    | <b>#33,000</b> | ₹22,400 |
| 8 | Red Hat<br>Application<br>Development I: | AD183 | Virtual Real |         |           | 21 to 50   | 1050 to 2500  |                | ₹20,923 |
|   | Programming in<br>Java EE                |       | Time         |         |           | 51 to 100  | 2550 to 5000  | ₹32,000        | ₹20,267 |
|   |  |       |              |         |           | 101 to 500 | 5050 to 25000 |                | ₹19,556 |

#### Terms and Conditions:

- Prices are exclusive of GST, if applicable
- Purchase Orders and Payment:
  - O Purchase Orders: Department of Higher Education, Government of West Bengal or as the Department directs the institution, will issue to the aligned Red Hat Authorised Partner purchase orders identifying the Red Hat Products for the intended End User(s) that DoHE/Institution wishes to purchase.
  - Payment: Payment is 100% advanced against each training and exam delivery
- Once batches confirmed and fee paid are not reversible or transferable
- Students enrolled to any Virtual / onsite training will not be replaced or transferred
- Examination bundled along with the training, should be appeared within 90 days from the date of training completion
- Eligible Refund Policies. Red Hat will refund amounts that are paid to Red Hat, and as requested by End User who cancels in accordance with Red Hat's cancellation policy as set forth at <a href="http://www.redhat.com/training/courses/policies/">http://www.redhat.com/training/courses/policies/</a>

#### **ADDITIONAL BENEFITS:**

- Faculty Development Program (FDP/TTT): Faculty development programs are structured initiatives aimed at
  enhancing the teaching skills, research capabilities, and professional growth of academic staff. These programs provide
  opportunities for continuous learning, innovation in pedagogy, and staying updated with advancements in their
  respective fields. For every 500 students enrolled in a course, 10 academic staff of institutions will be provided a 5 full
  day (40 hours) course on Red Hat Certified System Administrator (RHCSA) Rapid Track
- Workshops: Workshops by Red Hat team on emerging technologies provide essential training to government employees/faculties/students to stay updated with the latest advancements and tools. These sessions will create awareness on the benefits of the courses in emerging technologies helping them to enhance their skills, enabling them to effectively implement innovative solutions, identify new use cases for implementation in public service and improve public service delivery.
  - Seminars: A seminar on emerging technologies is a focused academic or professional gathering where
    experts and participants (students, faculties, government officials and eminent experts) discuss a specific
    topic or subject. It serves as a platform for knowledge sharing, idea exchange, and collaborative learning.

- Seminars often include presentations, lectures, and interactive sessions, fostering deeper understanding and professional growth.
- Enabling Learners to Opt for Global Red Hat Performance-based Certification Exams: Red Hat certification exams are recognised across the globe by industries and add value to the CV/Profile of the students, demonstrating a certain level of knowledge and skills acquisition by the learner. Red Hat Global certification exams are paid exams and through this initiative, Red Hat is happy to offer a discount upto 40% on the certification exam MRP. A free one day Enablement Workshop will be conducted for all the exam takers prior to the certification exam date.
- Supporting the Academic Team in course integration with academic curriculum: Red Hat Delivery team will be happy
  to collaborate with the academic team of the institution to collaboratively support them in curating the integration of
  Red Hat-skill courses with the academic curriculum enabling award of credits.
- Learning Management System: Students enrolled in the Red Hat courses will be empowered with the Red Hat Online
   Learning Platform and students have the opportunity to access the online content of the course.
- Virtual Labs: Students enrolled in Red Hat courses will be eligible to access virtual labs (available for a maximum no. of hours only) free of cost.