COURSE OUTLINE

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IST 265</td>
<td>Oracle Database Cloud Concept</td>
<td>3</td>
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</tbody>
</table>

| 2/2 | 2 | N/A | N/A | 15 |
| Class or Lecture | Laboratory | Clinical or Studio Hours | Practicum, Co-op, Internship | Course Length |
| Lecture Hours | Work Hours |  |

Not Applicable | Online
Performance on an Examination/Demonstration | Alternate Delivery Methods
(Placement Score (if applicable); minimum CLEP score) | (Online, Telecourse [give title of videos])

Required Materials:
Textbook: To be announced.
Material: Flash drive

Catalog Description:
Oracle Database Cloud Concept prepares Students for a complete, practical guide to architecting, designing, and building Database Clouds with Oracle 12c. Building Database Clouds in Oracle 12c combines a real-world, hands-on operations guide on Oracle Database-As-A-Service (DBaaS) and Oracle Real Application Clusters (RAC) for the Job Market with Cloud Database Coverage.

Prerequisites: IST 253
Corequisites: IST 262

Revised: Spring 2019

Course Coordinator (name, email, phone extension):
Queen E. Okike-Iroka, Ed.D.
Associate Professor Queen E. Okike
okikeq@mccc.edu
Extension 3464

Available Resources:
Available Resources: (Identify library resources relevant to the course, including books, videos, journals, electronic databases, recommended websites.)

The student will be able to:
- Make the business case for cloud computing with DBaaS
- Organize DBA responsibilities in cloud environments

Queen Okike, Ed. D.
- Plan, design, and deploy Database Clouds with Oracle’s latest components
- Consolidate schema and databases with Oracle Enterprise Manager 12c
- Use best practices for management, administration metering, and chargeback
- Clone databases quickly and reliably
- Set up grid infrastructure on Oracle VM for x86 or Oracle VM VirtualBox

<table>
<thead>
<tr>
<th>Week</th>
<th>Learning Objectives</th>
<th>Activities</th>
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<tr>
<td>2</td>
<td>Review DBA Responsibility in traditional environment and the new role of the Cloud DBA [CG 4]. Preparing to be a Cloud DBA[CG 4].</td>
<td>Chapter 2: The Database Cloud Administrator – Duties and Roles. Lab 2: Compare and Contrast Traditional DBA with Cloud DBA.</td>
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</tbody>
</table>
| 4    | Create Directory Objects, Database Pool and Create a Profile and Service Template [CG3, 4] Use schema as a service [CG 4]. | Chapter 4: Schema Consolidation in Enterprise Manager 12C. Lab. 4:  
  - Set up Schema as a Service  
  - Create Directory Objects  
  - Create Database Pool  
  - Create a Profile and Service Template. |
| 5    | Define Roles and Assigning Users, Create PaaS Infrastructure Zone, Database Pool, Configuring Request Settings, and setting Quotars. [CG3, 4] | Chapter 5: Database Consolidation in Enterprise Manager 12C Lab. 5:  
  - PDBaaS Setup  
  - Define Roles and Assign Users  
  - Create a PaaS Infrastructure Zone  
  - Create Database Pool  
  - Configure Request Settings |
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Task Description</th>
<th>Section</th>
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<tr>
<td>6</td>
<td>Discuss Mastering and chargeback in Enterprise Manager 12C Manager CG2] Explain Chargeback Entities, Charge Plans, Cost Center and Reports CG 4]</td>
<td>Chapter 6; Mastering and chargeback in Enterprise Manager 12C Manager. Lab. 6: Setup Chargeback.</td>
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<tr>
<td>8</td>
<td>Explain Full Clones and Snap Clones in Enterprise Manager 12C [CG3, 4]</td>
<td>Chapter 8: Cloning Database in Enterprise Manager 12C Lab. 8: List difference between Full and Snap Clones. Create a Service Template from a Database Profile RMAN DUPLICATE.</td>
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<tr>
<td>Step</td>
<td>Activity</td>
<td>Notes</td>
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| 10   | Explain OVM Virtual Box [CG 4]  
Explain Cloud Computing [CG 4]  
Explain EM12c and OVM [CG 4]  
Explain RAC Private Cloud on OVM Virtualization [CG 4] | Chapter 10  
Lab. 10  
Set Up, Install and Configure Oracle RAC 12c Private Cloud on OVM Virtual box |
| 11   | Hand-on | Page X  
Step 10.1 Approach 2 |
| 12   | Hand-on | Page X  
Step 10.2 OVM VirtualizeBox |
| 13   | Hand-on | Page X  
Step 10.3 OVM VirtualizeBox |
| 14   | Final Examination | Final Examination  
Build Database Cloud in Oracle 12c |
| 15   |          |       |