

## iOS Syllabus

### **Session 1: Objective C**

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| <ul style="list-style-type: none"> <li>• Classes, Properties, Categories and Protocols</li> </ul> | <ul style="list-style-type: none"> <li>• Working with Foundation Classes</li> </ul>    |
| <ul style="list-style-type: none"> <li>• Control statements and loops in objective C</li> </ul>   | <ul style="list-style-type: none"> <li>• Understanding run-time environment</li> </ul> |
| <ul style="list-style-type: none"> <li>• Working with Arrays and Dictionaries</li> </ul>          | <ul style="list-style-type: none"> <li>•</li> </ul>                                    |

### **Session 2: Memory Management**

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| <ul style="list-style-type: none"> <li>• Understanding the Memory leaks</li> </ul> | <ul style="list-style-type: none"> <li>• Reference Counting algorithm and ARC</li> </ul> |
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### **Session 3: iPhone SDK**

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| <ul style="list-style-type: none"> <li>• Introduction to iPhone SDK</li> </ul> | <ul style="list-style-type: none"> <li>• Introduction to xcode</li> </ul>        |
| <ul style="list-style-type: none"> <li>• COCOA Touch Framework</li> </ul>      | <ul style="list-style-type: none"> <li>• iOS Application Architecture</li> </ul> |

### **Session 4: Views and Views Controller**

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| <ul style="list-style-type: none"> <li>• View</li> </ul>            | <ul style="list-style-type: none"> <li>• ViewController</li> </ul>   |
| <ul style="list-style-type: none"> <li>• View Life cycle</li> </ul> | <ul style="list-style-type: none"> <li>• Basic Controls - Labels, Button, TextField, Slider etc</li> </ul> |

### **Session 5: Advanced Views and Controller**

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| <ul style="list-style-type: none"> <li>• TableView</li> </ul>                 | <ul style="list-style-type: none"> <li>• TableView Controller</li> </ul>             |
| <ul style="list-style-type: none"> <li>• Picker View , Date Picker</li> </ul> | <ul style="list-style-type: none"> <li>• Scroll View</li> </ul>                      |
| <ul style="list-style-type: none"> <li>• Web View</li> </ul>                  | <ul style="list-style-type: none"> <li>• Navigation and Tabbar Controller</li> </ul> |

### **Session 6: Interface Builder**

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| <ul style="list-style-type: none"> <li>• Interface Builder</li> </ul>            | <ul style="list-style-type: none"> <li>• Understanding XIB files</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Creating Outlets and Actions</li> </ul> | <ul style="list-style-type: none"> <li>• Hibernate with annotation</li> </ul> |

### **Session 7: Data Storage**

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| <ul style="list-style-type: none"> <li>• Directory structure of an iOS App</li> </ul> | <ul style="list-style-type: none"> <li>• Using SQLite database</li> </ul> |
| <ul style="list-style-type: none"> <li>• Using Core Data</li> </ul>                   | <ul style="list-style-type: none"> <li>• Property List</li> </ul>         |
| <ul style="list-style-type: none"> <li>• User Defaults</li> </ul>                     | <ul style="list-style-type: none"> <li>•</li> </ul>                       |

### **Session 8: XML and Web Services**

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| <ul style="list-style-type: none"> <li>• XML Parser</li> </ul>             | <ul style="list-style-type: none"> <li>• JSON Parser</li> </ul>      |
| <ul style="list-style-type: none"> <li>• SOAP based web service</li> </ul> | <ul style="list-style-type: none"> <li>• REST web service</li> </ul> |

### **Session 9 :Touches and Gestures**

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| <ul style="list-style-type: none"> <li>• Handling the touch events</li> </ul> | <ul style="list-style-type: none"> <li>• Handling Gestures</li> </ul> |
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### **Session 10: Multimedia**

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| <ul style="list-style-type: none"> <li>• Playing Audio file</li> </ul>      | <ul style="list-style-type: none"> <li>• Playing short sounds</li> </ul> |
| <ul style="list-style-type: none"> <li>• Playing Video on iPhone</li> </ul> | <ul style="list-style-type: none"> <li>•</li> </ul>                      |

### **Session 11; Maps**

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| <ul style="list-style-type: none"> <li>• Displaying Map in iOS App</li> </ul> | <ul style="list-style-type: none"> <li>• Working with Pin Annotations</li> </ul> |
| <ul style="list-style-type: none"> <li>• Handling the Map region</li> </ul>   | <ul style="list-style-type: none"> <li>•</li> </ul>                              |

### **Session 12: Working with Storyboard**

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| <ul style="list-style-type: none"> <li>• Using Storyboard to design the app</li> </ul>          | <ul style="list-style-type: none"> <li>• Using Segues</li> </ul> |
| <ul style="list-style-type: none"> <li>• Passing data from One Controller to another</li> </ul> | <ul style="list-style-type: none"> <li>•</li> </ul>              |

### **Session 13: Handling Different Screen Sizes**

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| <ul style="list-style-type: none"> <li>• Programmatically controlling the views</li> </ul> | <ul style="list-style-type: none"> <li>• Using springs and struts model</li> </ul> |
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• AutoLayout	•
<b>Session 14: Multithreading</b>	
• Multithreading in an iOS App	• Using NSThread
• Using GCD ( Grand Central Dispatch )	•
<b>Session 15: Notifications</b>	
• NSNotification and NSNotificationCenter	• Working with UILocalNotifications
• APNS ( Apple Push Notification Service ) Overview	•
<b>Session 16: Using Camera</b>	
• Capturing image using camera	• Getting the images from the Image Gallery
<b>Session 17 : Accessing Device Sensors</b>	
• Accelerometer	• GPS
<b>Session 18: Mails and SMS</b>	
• Sending mail and SMS from an App	•
<b>Session 20: Transitioning to the iPad</b>	
• SplitView Controller	• PopOver Controller
<b>Session 21: Deployment</b>	
• Installing and testing an App on iOS Device	• Publishing an app to the Appstore

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