

# Intermediate Payroll Analytics

## Course Outline

### Module 1: Analytics Best Practices

- **Lesson 1: Governance**
  - Payroll analytics governance
  - Four steps to ensuring the payroll analytics governance
  - Key players in data governance
  - Governance approaches
  - Active governance
  - Benefits of data governance
  - Ethical governance
- **Lesson 2: Integrated Data**
  - Data
  - Integrated Data
- **Lesson 3: Data Warehouse and Data Lakes**
  - Data warehouses
  - Data lakes
  - Data lakes or data warehouses?
- **Lesson 4: Benefits of a Data Warehouse**
  - Benefits of a data warehouse
- **Lesson 5: Data Warehouse Organization**
  - Approaches for storage of data
  - Data warehouse characteristics
- **Lesson 6: Cloud Data Warehouses**
  - Traditional vs. cloud-based data warehouse
  - How data warehouse work in the cloud
- **Lesson 7: Payroll Analytics – Integrated Data or Data Warehouses**
  - Integrated payroll-HR data
  - Benefits of data warehouse
  - Where to perform payroll analytics?
- **Lesson 8: Organizational Readiness**
  - Organizational readiness
  - As analytics data culture
  - Building analytic leadership

- **Lesson 9: BADR Framework**
  - BADIR framework
  - Asking business questions
  - Developing an analysis plan
  - Planning the data collection
  - Gaining insights
  - Making recommendations

### Module 2: Data Best Practices

- **Lesson 1: Data Privacy**
  - Data privacy
  - Who can access appropriate data
  - Protecting data
  - Data protection principles
  - Data privacy best practices
  - Data protection trends
  - Mobile data protection
  - Data protection management
- **Lesson 2: Security and Cyberattacks**
  - Data access - security
- **Lesson 3: Data Breaches**
  - Security and cyberattacks
  - Employee data
  - Cyberattack methods
  - Types of security
  - How to avoid attacks
  - Data breaches
  - Zero-trust security
- **Lesson 4: Data Literacy**
  - Data literacy
- **Lesson 5: Data Transfers – API and RPA**
  - Data transfer
  - Application programming interfaces (API)
  - Robotic process automation (RPA)

### Module 3: Timekeeping Analytics

- **Lesson 1: Identifying Unapproved Time with Analytics**
  - Time off for exempt employees
  - Time off not approved

- Time off not approved
- Unapproved time
- Trends in timecard approvals by business units
- Historical corrections not approved
- Failure to approve time
- **Lesson 2: Correcting Time with Analytics**
  - Hours reported over a threshold
  - Hours in excess of pay period standard
  - Hours more than scheduled
  - Hours less than scheduled
  - No hours or fewer hours than expected
  - Historical corrections
  - Current pay period hires with no time entered
  - Hours for non-working days
- **Lesson 3: Using Analytics During Time Processing**
  - Hours for individuals not employed
  - Payroll time corrections to prevent paycheck errors
  - Reducing processing delays

### Module 4: Payroll Processing Analytics

- **Lesson 1: Using Analytics During Payroll Processing**
  - Active employees without gross pay
  - Terminated employees without pay
  - Terminated employees with pay who should not be paid
  - Variance (plus or minus) of employee's gross to prior payroll
  - Trends in payroll deduction, earning codes and allowances
  - Exceed maximum pension/retirement contribution
  - Negative deductions and earnings

# Intermediate Payroll Analytics Course Outline *Cont'd*

- No earnings with deductions
- Current pay period hires with no gross pay

## **Lesson 2: Using Analytics During Tax Processing**

- Exceeding the social insurance, social security wage base
- Negative quarter to date or year to date earnings
- State/provincial/local taxable wages differ from federal taxable wages
- FICA exempt vs. visa exemption
- Difference in state/province income tax withholding, unemployment insurance and residence state/province
- Federal, state/provincial and local taxes withheld with no taxable earnings
- Variance from prior federal, state/provincial, local taxes
- Identify variances of local taxes (wages X rate)

## **Lesson 3: Using Analytics to Improve Payroll Accounting**

- Wage and tax summary trends
- Trends of account reconciliations
- Audit Data Analytics requirements of the AICPA
- Actual to budget (total, business unit, cost center)

## **Module 5: Payroll Operation Analytics**

### **Lesson 1: Trends in Payroll Costs**

- Trends in payroll cost per payment
- Trends in the number of employees per payroll FTE employee

### **Lesson 2: Trends in Electronic Payments**

- Trends in electronic payments (direct deposit and pay card)
- Trends in the use of earned wage access

### **Lesson 3: Predictive Analysis of Payroll Operation**

- Predictive analysis of payroll operations

### **Lesson 4: Payroll Analytic Trends**

- Trends related to merger and acquisition activities
- Trends based on the number of pay cycles
- Off-cycle payment causes

### **Lesson 5: Other Payroll Analytics**

- Excessive overtime as a percentage of wages, provided to managers
- Identify employees with multiple employee IDs

## **Module 6: Payroll Key Performance Indicators**

### **Lesson 1: Key Performance Indicators**

- Standard payroll KPI definitions
- Developing KPIs
- Quantitative and qualitative payroll KPIs

### **Lesson 2: Payroll KPIs**

- Standard payroll KPI definitions
- Payroll accuracy
- Cost of payroll
- Cost per payment
- Cycle times
- Time to process and commit payroll
- On-time delivery

- Anomaly detection – Comparison with historical data
- Issues prior to processing
- Employee attrition rates
- Compliance

### **Lesson 3: Preparing a Payroll KPI Dashboard**

- Preparing a Payroll KPI Dashboard

## **Module 7: Sharing the Payroll Analytics Story**

### **Lesson 1: Sharing Payroll Metrics with Employees**

- Electronic payment metrics
- Earned wage access metrics
- Percentage of Self-Service Usage

### **Lesson 2: Sharing Payroll Metrics with the Payroll Organization**

- Time to process payroll
- Percentage of abandoned calls
- Average payroll inquiry response time

### **Lesson 3: Identify Payroll Metrics to Share with Management and Upper Management**

- Payroll processing accuracy
- Percentage reason for off-cycle payments
- Cost per payment
- Tax penalties paid

### **Lesson 4: Presenting Metrics to Upper Management**

- How to get your ideas accepted
- Making the presentation
- Preparing the presentation