# **Excel Summer Bootcamp NYC**

In this live online summer class for high schoolers, you'll become proficient in Microsoft Excel. Learn functions, formulas, Pivot Tables, macros, and time-saving techniques to prepare for college courses or internships.

COURSE SYLLABUS

Group classes in NYC and onsite training is available for this course. For more information, email <u>corporate@nobledesktop.com</u> or visit: <u>https://www.nextgenbootcamp.com/classes/excel-summer-program-nyc</u>


# **Course Outline**

# Introduction

Interface Provides a brief description of the user interface for Microsoft Excel

### Worksheets

Manage elements of worksheets

### Data Entry

Examines and describes multiple means of entering data

Rows & Columns Insert, delete, hide, and group rows and columns

### Formulas

#### Autofill

Explores Excel's amazing ability to predict and extrapolate patterns

#### Calculations

Perform mathematical expressions and review the Order of Operations rule

#### **AutoSum Functions**

Review the five key functions: Sum, Average, Max, Min, and Count Numbers

#### Absolute Reference Changing a cell reference into a constant, which is necessary for certain calculations

### True or False

Tests to see whether criteria is true/false



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#### **Text Functions**

Introduces functions used to modify text in Excel

### **Multi-Input Functions**

More advanced functions that require more than one input

# Formatting

### Formatting

The addition of effects to an Excel document to provide visual instruction

### **Cell Styles**

Apply consistent formatting to specific types of cells or values

### **Conditional Formatting**

Apply a predetermined format based on specified rules

# **Charts & Tables**

### Tables

Explore the special functionality created when data is converted to a Table

### **Column Chart**

Create a Column chart to visually examine data

### Line Chart

Create a Line chart and Spark lines to visually examine data

### Pie Chart

Create a Pie chart to visually examine data

# Workbook Management

### Freeze Panes Enable a portion of the screen to stay visible at all times

### Printing

Rules and strategies to make printing easy

### Windows

Change how your worksheet displays data

### Templates Use prefabricated templates to build a spreadsheet

### Excel Tricks

Fundamental keyboard shortcuts and other Excel tricks

# **End of Class Projects**

### Projects

End of class projects to review key concepts from the class

# Worksheet Management

#### Navigation

Keyboard shortcuts that facilitate quick and easy navigation within cells

#### **Formula Review**

Review various methods for completing calculations

# Working with Text

Splitting Text Use Text to Columns to split text into multiple cells

Joining Text Join text from separate cells

# **Cell Ranges**

Paste Special Apply formats and perform calculations on selected cells

Paste Special Values Hardcode the answer to a formula or function

#### **Named Ranges**

Assign a name to a range of cells to make it easier to reference those ranges in calculations

# **Database Functions**

#### **VLOOKUP & XLOOKUP**

Use VLOOKUP and XLOOKUP to find information in cell range and return information from another cell range

#### Sort & Filter

Use Sort & Filter to find and organize data in large databases

### **Pivot Tables**

**Pivot Tables** Create Pivot Tables to quickly summarize large databases

**Pivot Tables & Grouping** Group within Pivot Tables

Multiple Pivot Tables Create multiple Pivot Tables on a single worksheet

# **Logical Functions**

IF statements Use IF statements to return output based on the contents of another cell

### AND, OR

Tests to see whether multiple conditions are true

# **Math Functions**

### SUBTOTAL

Use SUBTOTAL function to sum/average/count values based on what is not filtered

# **Statistical Functions**

### SUMIFS

Use SUMIFS function to sum cells based on one or more conditions

### COUNTIFS

Use COUNTIFS function to count cells based on one or more conditions

# **Improve Data Quality**

**Data Validation** Restrict the type of data that can be allowed in a cell

Remove Duplicates Eliminate duplicate row data

# **Advanced Charts**

**Combo Charts** Combine two or more charts into a single chart, with the option of adding a secondary axis

# **End of Class Project**

**Project** End of class project to review key concepts from the class

# **Advanced Navigation**

### Advanced Navigation

Advanced navigation techniques

Fill Review Review of Autofill conventions and techniques

# **Cell Management**

### **Advanced Cell Locking**

Create powerful formulas by locking either the column or the row

### Hot Keys

Transform the ribbon into a visual listing of pre-assigned shortcuts

### **Cell Auditing**

Observe the relationship between formulas and cells

Go To Special

Quickly select cells that meet certain criteria

# **Special Formatting**

#### **Conditional Formatting-Formulas**

Create custom rules for Conditional Formatting with formulas

#### **Date Functions**

Calculate dates with a variety of functions

#### **Custom Number Formats**

Customize number formats to meet specific requirements

# **Advanced Functions**

### Nested IF statements Nested "IF" statements allow for more than just two possibilities in a single cell

#### IF statements with AND/OR

Expand the functionality of the IF function by adding an AND / OR criteria

# What If Analysis

Goal Seek Find the desired result by adjusting an input value

#### **Data Tables**

Data Tables show the range of effects of one or two different variables on a formula

# **Advanced Analytical Tools**

### Calculation Options

Minimize volatility by changing calculation options

#### **Conditional SumProduct**

Use SumProduct with conditions to exclude data that does not meet certain criteria

#### **Pivot Table-Base Fields & Sets**

Analyze data in a Pivot Table with increased granularity by defining base fields and sets

#### **Pivot Table-Calculations**

Create calculated rows or columns in a Pivot Table that go beyond the source data

#### **Pivot Charts**

Create dynamic, graphical representations of Pivot Table data

### **Advanced Database Functions**

#### **XMATCH** function

Return the relative position (column or row number) of a lookup value

#### **INDEX-MATCH**

Efficiently return a value or reference from a cell at the intersection of the row and column

#### **INDEX-Double MATCH**

Use a second Match function to create a powerful, two-way lookup tool

### **Introduction to Macros**

#### **Recording Macros**

Record macros that involve formatting and calculations

### **Dynamic Arrays**

#### **Dynamic Arrays**

Use formulas that can return arrays of variable size

### **End of Class Projects**

#### Projects

End of class project to review key concepts from the class