The primary purpose of this survey is to gather information related to the specific analytic knowledge, skills, and abilities valued by the accounting profession and practitioners. The findings of this survey will allow us to develop teaching materials to enhance those skills specifically identified as important by the accounting profession.

Please answer every question asked based on your past experiences and judgments. There are no right or wrong answers. Rather, we are interested in your judgement, experience and perceptions. Responses will be kept confidential and will not be linked back to any individual.

Thank you in advance for your participation in this survey.

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In what industry do you currently work?

* Accounting
* Finance
* Consulting
* IT and Technology
* Other, please indicate\_\_\_\_\_\_\_

Which of the following is your main functional role?

* Managerial/Advisory
* Financial Reporting
* Audit/Assurance
* Tax
* Data Analytics
* Other, please indicate\_\_\_\_\_\_\_\_

What is your highest level of qualification?

* High School Graduate
* Undergraduate Degree
* MBA or Master Degree
* PhD

Which professional qualifications do you have? Please mark the relevant option(s).

* CA
* CPA
* Certified Information System
* Other, please indicate\_\_\_\_\_\_\_\_

What is your current job title? \_\_\_\_\_\_\_\_\_\_\_

How many years of working experience do you have? \_\_\_\_\_\_\_\_\_\_\_

Please indicate your knowledge regarding data analytics

Not knowledgeable at all Extremely knowledge

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

Please indicate your gender:

* Male
* Female
* Prefer not to disclose

Please select your age bracket:

* 20-29
* 30-39
* 40-49
* 50-59
* 60-69
* 70 and above

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Please answer the following questions based on your experience:

1. How frequently do you make decisions that are data-driven in nature?

Infrequent Frequent

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

2. Do your regular tasks involve the use of more technical skills or more data interpretation?

Technical skills Data interpretation

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

3. Have you learned more analytics knowledge in academia or while on the job?

Academia On the job

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

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Please identify which of these general skills you consider as important and rank these identified skills.

First, drag items you feel are used by recent accounting graduates from the list on the left into the box on the right. Then please rank the terms based on importance.

1. Problem-solving skills

2. Business communication

3. Data interpretive

4. Data gathering

5. Business knowledge

6. Problem/process modelling

7. Research skills

8. Data modelling

9. Software training

10. Data mining

11. Data visualisation

12. Data warehouse

13. SQL query

14. Statistical methods

15. Systems infrastructure

16. Code writing

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How important are the following items for recent accounting graduates to possess or understand:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Not at all important | Somewhat important | Neither important nor unimportant | Important | Extremely Important |
| 1 | Optimisation | 1 | 2 | 3 | 4 | 5 |
| 2 | Descriptive statistics | 1 | 2 | 3 | 4 | 5 |
| 3 | Correlation | 1 | 2 | 3 | 4 | 5 |
| 4 | Simulation | 1 | 2 | 3 | 4 | 5 |
| 5 | Regression | 1 | 2 | 3 | 4 | 5 |
| 6 | Clustering | 1 | 2 | 3 | 4 | 5 |
| 7 | Text mining | 1 | 2 | 3 | 4 | 5 |
| 8 | Machine learning | 1 | 2 | 3 | 4 | 5 |
| 9 | Sentiment analysis | 1 | 2 | 3 | 4 | 5 |

Please indicate your predicted change in importance for the next five years for the following items for recent accounting graduates to possess or understand:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Less important | Equally important | More important |
| 1 | Optimisation | 1 | 2 | 3 |
| 2 | Descriptive statistics | 1 | 2 | 3 |
| 3 | Correlation | 1 | 2 | 3 |
| 4 | Simulation | 1 | 2 | 3 |
| 5 | Regression | 1 | 2 | 3 |
| 6 | Clustering | 1 | 2 | 3 |
| 7 | Text mining | 1 | 2 | 3 |
| 8 | Machine learning | 1 | 2 | 3 |
| 9 | Sentiment analysis | 1 | 2 | 3 |

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How important are the following application-oriented skills for recent accounting graduates to possess or understand:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Not at all important | Somewhat important | Neither important nor unimportant | Important | Extremely Important |
| 1 | Advanced Excel features (PowerQuery, optimisation, solver, simulation, advanced formulas) | 1 | 2 | 3 | 4 | 5 |
| 2 | Computer assisted audit tools (ACL, IDEA) | 1 | 2 | 3 | 4 | 5 |
| 3 | Database software (SQL & NoSQL, Microsoft Access) | 1 | 2 | 3 | 4 | 5 |
| 4 | Statistics (SAS, SPSS) | 1 | 2 | 3 | 4 | 5 |
| 5 | Visualisation (Tableau, Qlik, Microsoft BI) | 1 | 2 | 3 | 4 | 5 |
| 6 | Data infrastructure (Oracle, MapReduce) | 1 | 2 | 3 | 4 | 5 |
| 7 | Programming (R, Java, Python) | 1 | 2 | 3 | 4 | 5 |

Please indicate your predicted change in importance for the next five years for the following application-oriented skills for recent accounting graduates to possess or understand:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Less important | Equally important | More important |
| 1 | Advanced Excel features (PowerQuery, optimisation, solver, simulation, advanced formulas) | 1 | 2 | 3 |
| 2 | Computer assisted audit tools (ACL, IDEA) | 1 | 2 | 3 |
| 3 | Database software (SQL & NoSQL, Microsoft Access) | 1 | 2 | 3 |
| 4 | Statistics (SAS, SPSS) | 1 | 2 | 3 |
| 5 | Visualisation (Tableau, Qlik, Microsoft BI) | 1 | 2 | 3 |
| 6 | Data infrastructure (Oracle, MapReduce) | 1 | 2 | 3 |
| 7 | Programming (R, Java, Python) | 1 | 2 | 3 |

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How important are the analytic skills for accounting/auditing tasks?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Not at all important | Somewhat important | Neither important nor unimportant | Important | Extremely Important |
| 1 | Data collection | 1 | 2 | 3 | 4 | 5 |
| 2 | Data cleaning | 1 | 2 | 3 | 4 | 5 |
| 3 | Data processing | 1 | 2 | 3 | 4 | 5 |
| 4 | Reporting | 1 | 2 | 3 | 4 | 5 |
| 5 | Analysis | 1 | 2 | 3 | 4 | 5 |
| 6 | Prediction | 1 | 2 | 3 | 4 | 5 |
| 7 | Error identification | 1 | 2 | 3 | 4 | 5 |

How important are the analytic skills for accounting/auditing tasks in the next 5 years?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Not at all important | Somewhat important | Neither important nor unimportant | Important | Extremely Important |
| 1 | Data collection | 1 | 2 | 3 | 4 | 5 |
| 2 | Data cleaning | 1 | 2 | 3 | 4 | 5 |
| 3 | Data processing | 1 | 2 | 3 | 4 | 5 |
| 4 | Reporting | 1 | 2 | 3 | 4 | 5 |
| 5 | Analysis | 1 | 2 | 3 | 4 | 5 |
| 6 | Prediction | 1 | 2 | 3 | 4 | 5 |
| 7 | Error identification | 1 | 2 | 3 | 4 | 5 |

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How important are the following analytic skills for recent accounting graduates to possess or understand:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Not at all important | Somewhat important | Neither important nor unimportant | Important | Extremely Important |
| 1 | Data integration/gathering | 1 | 2 | 3 | 4 | 5 |
| 2 | Data privacy and security | 1 | 2 | 3 | 4 | 5 |
| 3 | Cleaning data | 1 | 2 | 3 | 4 | 5 |
| 4 | Data mining | 1 | 2 | 3 | 4 | 5 |
| 5 | Database modeling | 1 | 2 | 3 | 4 | 5 |
| 6 | Database management | 1 | 2 | 3 | 4 | 5 |

Please indicate your predicted change in importance for the next five years for the following analytic skills for recent accounting graduates to possess or understand:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Less important | Equally important | More important |
| 1 | Data integration/gathering | 1 | 2 | 3 |
| 2 | Data privacy and security | 1 | 2 | 3 |
| 3 | Cleaning data | 1 | 2 | 3 |
| 4 | Data mining | 1 | 2 | 3 |
| 5 | Database modeling | 1 | 2 | 3 |
| 6 | Database management | 1 | 2 | 3 |

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Which data analytic skills and tools should be taught in the university?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Not at all important | Somewhat important | Neither important nor unimportant | Important | Extremely Important |
| 1 | Developing student’s data analytics mindset (critical thinking  skills), which means development of students’ ability to ask  questions that can be answered using data. | 1 | 2 | 3 | 4 | 5 |
| 2 | Developing students’ ability to effectively communicate  processes and outcomes of data analytics processing | 1 | 2 | 3 | 4 | 5 |
| 3 | Developing students’ software adaptability, which means  exposing students to software products other than Excel | 1 | 2 | 3 | 4 | 5 |
| 4 | Developing students’ ability to use statistics in analyzing data. | 1 | 2 | 3 | 4 | 5 |
| 5 | Developing student’s ability to extract, transform, and load  structured or unstructured data into software analysis  packages | 1 | 2 | 3 | 4 | 5 |

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Who should provide data analytics instruction to students?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Strongly disagree | Somewhat agree | Neither agree nor disagree | Agree | Strongly agree |
| 1 | Only faculty with sufficient training in data analytics should teach data analytics topics. | 1 | 2 | 3 | 4 | 5 |
| 2 | Teams of accounting faculty and information systems faculty should teach data analytics topics. | 1 | 2 | 3 | 4 | 5 |
| 3 | Statistics faculty should teach data analytics topics. | 1 | 2 | 3 | 4 | 5 |
| 4 | Any accounting faculty can teach data analytics. | 1 | 2 | 3 | 4 | 5 |
| 5 | Practitioners should be invited to teach data analytics. | 1 | 2 | 3 | 4 | 5 |

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How should data analytics topics be taught to accounting students?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Strongly disagree | Somewhat agree | Neither agree nor disagree | Agree | Strongly agree |
| 1 | Data analytics topics should be taught using case studies | 1 | 2 | 3 | 4 | 5 |
| 2 | Data analytics topics should be taught using hands-on projects | 1 | 2 | 3 | 4 | 5 |
| 3 | Data analytics should be taught using vignettes | 1 | 2 | 3 | 4 | 5 |
| 4 | Data analytics should be taught using classroom lecture | 1 | 2 | 3 | 4 | 5 |
| 5 | Data analytics should be taught using articles and other readings | 1 | 2 | 3 | 4 | 5 |
| 6 | Data analytics should be taught using real-world practicum where students perform data analysis for companies | 1 | 2 | 3 | 4 | 5 |

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When should data analytics skills and tools be included in the accounting curriculum?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Strongly disagree | Somewhat agree | Neither agree nor disagree | Agree | Strongly agree |
| 1 | Data analytics should be taught in graduate coursework | 1 | 2 | 3 | 4 | 5 |
| 2 | Data analytics should be taught as upper-level (junior and senior level) undergraduate coursework | 1 | 2 | 3 | 4 | 5 |
| 3 | Data analytics should be integrated into all accounting coursework | 1 | 2 | 3 | 4 | 5 |
| 4 | Data analytics should be taught as lower-level (freshman and sophomore) undergraduate coursework | 1 | 2 | 3 | 4 | 5 |
| 5 | Data analytics should be taught in the accounting professional qualifications | 1 | 2 | 3 | 4 | 5 |
| 6 | Data analytics should be taught while on the job | 1 | 2 | 3 | 4 | 5 |

**Thank you for your participation!**