



Data Analytics Toolkit

Ivy Tech Community College

<https://www.ivytech.edu/programs/all-academic-programs/school-of-information-technology/data-analytics>



IVY TECH
COMMUNITY COLLEGE

Career Exploration

Is Data Analytics the right career path for me?

Consider Data Analytics as your career path if you'd like to:

- Extract, organize, and analyze data sets to gather valuable insights, identify patterns, and draw conclusions about the information they contain.
- Use specialized tools and systems ranging from spreadsheets, data visualization, reporting tools, statistical models, data mining programs, and open-source languages for data manipulation.
- Help organizations perform more efficiently, maximize profit, verify or disprove scientific models, solve problems and challenges, and make data-driven business decisions.
- Help organizations develop a deeper understanding of their audience, industry, and company to foster strategic decision-making and planning.

How do I get started in Data Analytics at the high school level?

[Enroll](#) in free dual-credit courses at your high school (if available)

Though there is no Data Analytics pathway in the Next Level Programs of Study, you can still learn about data analytics through the following courses:

- **CTE Concentrator A:** Website and Database Development
- **Pathway Capstone:** IT Support Capstone

or

[Enroll](#) in dual-enrollment courses at Ivy Tech Community College.

- Students in the Dual Enrollment program can enroll and take Data Analytics courses at their local Ivy Tech campus for \$170.07 per credit hour or for free if the campus has funding.

What Ivy Tech courses align with the dual-credit courses mentioned above?

Depending on the dual-credit courses you take at your high school, you can get credits for the following Ivy Tech courses:

- DBMS 110: Introduction to Data Analytics

If I cannot enroll in dual-credit or dual-enrollment courses, how can I learn the basics of Data Analytics?

You can access free Data Analytics content on the following YouTube channels:

- [Sentdex](#)
- [Corey Schafer](#)
- [StatQuest With John Starmer](#)
- [Krish Naik](#)
- [Alex The Analyst](#)

Are there any books I can read to learn about Data Analytics?

You can read the following books:

- [Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking](#)
- [Naked Statistics: Stripping the Dread from the Data](#)
- [Data Analytics Made Accessible](#)
- [Practical Statistics for Data Scientists: 50+ Essential Concepts Using R and Python](#)
- [Storytelling with Data: A Data Visualization Guide for Business Professionals](#)

Are there any podcasts I can listen to learn about Data Analytics?

You can listen to the following podcasts:

- [Data Skeptic](#)
- [DataFramed](#)
- [Not So Standard Deviations](#)
- [Women in Data Science](#)
- [Data Crunch](#)

Can I participate in any competitions at the high school level?

You can participate in the following competitions:

- [MathWorks Math Modeling \(M3\) Challenge](#)
- [National Science Bowl](#)
- [The STEM Fellowship Big Data Challenge \(BDC\)](#)
- [ASA DataFest](#)
- [Kaggle Competitions](#)

Career Engagement

What Data Analytics programs can I pursue after high school graduation?

You can continue your education at Ivy Tech Community College through the following credentials in the Data Analytics program:

- [Data Analytics, Associate of Science](#)
- [Data Analytics, Associate of Applied Science](#)
- [Data Analytics Certificate](#)
- [Data Analytics Technical Certificate](#)

What industry certifications are valuable in Data Analytics?

You can pursue the following industry certifications:

- [CompTIA Data+](#)
- [Associate Certified Analytics Professional](#)
- [Microsoft Certified: Power BI Data Analyst Associate](#)
- [Tableau Desktop Specialist](#)
- [Google Data Analytics Professional](#)

To pursue Industry Certifications, you can enroll in programs offered by the [Ivy+ IT Academy](#). All training is designed to quickly give you the skills needed to enter and succeed in the tech industry. You can learn more about their current offerings by completing this [form](#) or contacting ITAcademy@ivytech.edu.

What are the best programming languages for Data Analytics?

These are some of the best programming languages for Data Analytics:

- Python
- R
- SQL
- Scala
- Julia
- Java
- MATLAB
- JavaScript

- C/C++
- SAS

Are there any tools I should be familiar with in Data Analytics?

You should be familiar with the following tools in Data Analytics:

- [Microsoft Excel](#)
- [Microsoft Power BI](#)
- [Tableau](#)
- [RapidMiner](#)
- [KNIME](#)
- [Apache Software Foundation](#)
- [Jupyter Notebook](#)
- [QlikView](#)
- [SAS Business Intelligence](#)
- [QlikView](#)

Can I visit blogs to learn about emerging technologies and topics in Data Analytics?

You can visit the following blogs:

- [Analytics Vidhya](#)
- [Data Science Central](#)
- [KDNuggets](#)
- [Towards Data Science](#)
- [Dataquest](#)

Can I participate in any competitions at a college level?

You can participate in the following competitions:

- [Data Open](#)
- [American Statistical Association \(ASA\) DataFest](#)
- [Midwest Undergraduate Data Analytics Competition \(MUDAC\)](#)
- [Kaggle Competitions](#)
- [Driven Data](#)

Career Experience

Are there any online forums where I can interact with experts in Data Analytics?

You can interact with experts on the following forums:

- [Cross Validated](#)
- [Data Science Central](#)
- [Kaggle](#)
- [DataCamp](#)
- [Reddit](#)

Are there any platforms where I can find and contribute to open-source projects in Data Analytics?

You can find open-source projects on the following platforms:

- [Github](#)
- [Apache Software Foundation](#)
- [Kaggle](#)
- [Data.world](#)
- [Gitlab](#)

Are there any volunteering opportunities in Data Analytics?

You can volunteer through the following platforms or programs:

- [DataKind](#)
- [Statistics Without Borders](#)
- [Data for Democracy](#)
- [Solve for Good](#)
- [Catchafire](#)

Are there any platforms that provide freelance work opportunities to gain professional experience?

You can refer to the following platforms for freelance work:

- [Upwork](#)
- [Fiverr](#)
- [Toptal](#)
- [Freelancer](#)

- [Guru](#)

Are there any online learning platforms for supplementary learning in Data Analytics?

You can check the following online learning platforms:

- [Coursera](#)
- [Udacity](#)
- [edX](#)
- [DataCamp](#)
- [Kaggle](#)

How can I network with community leaders or industry professionals in Data Analytics?

You can network with students and professionals by registering for events on the following platforms:

- [Eventbrite](#)
- [MeetUp](#)
- [Facebook](#)

Can I join any professional associations in Data Analytics for professional development and networking opportunities?

You can join the following professional associations:

- [American Statistical Association](#)
- [Data Science Association](#)
- [Digital Analytics Association](#)
- [International Institute of Business Analysis](#)
- [Institute for Operations Research and the Management Sciences](#)

Can I pursue a Bachelor's degree after graduating from Ivy Tech Community College?

Ivy Tech has transfer partnerships with the following 4-year colleges:

- Indiana Wesleyan University
- Indiana University Purdue University Indianapolis (IUPUI)
- Northern Kentucky University
- Purdue Global

You can learn more about the different [transfer options](#) on our website.

What are some of the entry-level roles I can apply for after graduating with an Associate Degree in Data Analytics?

You can apply to the following roles depending on your concentration and area of interest:

- Data Center Operator
- Business Analyst
- Reporting Analyst
- Business Intelligence Analyst
- Data Analyst

You can develop salary reports using [PayScale Salary Reports](#). Please note that the calculated salary is just an estimation based on your entries and selections and might not be 100% accurate.

For any questions or feedback, please contact Shabbir Qutbuddin at squtbuddin@ivytech.edu.

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