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*The MS Data Analytics degree prepares statisticians, analysts, data managers, programmers, and other business and IT professionals for successful and rewarding careers in the high-demand field of data analytics through cutting-edge courses in data mining, manipulation,*



as 15–20 hours per week to the program, while others may need to devote more time. For this reason, pre-assessments are there to help your program mentor form a profile of your prior knowledge and create a personalized Degree Plan.

At WGU, faculty serve in specialized roles, and they will work with you individually to provide the guidance, instruction, and support you will need to succeed and graduate. As a student, it is important for you to take advantage of this support. It is key to your progress and ultimate success.

Upon your enrollment, you will be assigned a program mentor—an expert in your field of study who will provide you with regular program-level guidance and support from the day you start until the day you graduate. Your program mentor will set up regular telephone appointments (weekly at first) with you, which you will be expected to keep. The mentor will review program competencies with you and work with



academic standing, you must complete at least 66.67% of the units you attempt over the length of your program—including any courses you add to your term to accelerate your progress. Additionally, during your first term at WGU you must pass at least 3 competency units in order to remain eligible for financial aid. We know that SAP is complex, so please contact a financial aid counselor should you have additional questions. \*Please note: The Endorsement Preparation Program in Educational Leadership is not eligible for federal financial aid.

Your Degree Plan includes courses needed to complete your program. To obtain your degree, you will be required to demonstrate your skills and knowledge by completing the assessment(s) for each course. In general there are two types of assessments: performance assessments and objective assessments. Performance assessments contain, in most cases, multiple scored tasks such as projects, essays, and research papers. Objective assessments include multiple-choice items, multiple-selection items, matching, short answer, drag-and-drop, and point-and-click item types, as well as case study and video-based items. Certifications verified through third parties may also be included in your program. More detailed information about each assessment is provided in each course of study.

WGU works with many different educational partners, including enterprises, publishers, training companies, and higher educational institutions, to provide high-quality and effective learning resources that match the competencies you are developing. These vary in type, and may be combined to create the best learning experience for your course. A learning resource can be an e-textbook, online module, study guide, simulation, virtual lab, tutorial, or a combination of these. The cost of most learning resources are included in your tuition and Learning Resource Fee. They can be accessed or enrolled for through your courses. Some degree-specific resources are not covered by your tuition, and you will need to cover those costs separately. WGU also provides a robust library to help you obtain additional learning resources, as needed.

#### Mobile Compatibility:

The following article provides additional details about the current state of mobile compatibility for learning resources at WGU. It includes a list that can be referenced to determine the mobile friendliness of all core course materials used in a program.

[Student Handbook article: Can I use my mobile device for learning resources?](#)

As previously mentioned, competency units (CUs) have been assigned to each course in order to measure your academic progress. If you are an undergraduate student, you will be expected to enroll in a minimum of 12 competency units each term. Graduate students are expected to enroll in a minimum of 8 competency units each term. A standard plan for a student for this program who entered WGU without any transfer units would look similar to the one on the following page. Your personal progress can be faster, but your pace will be determined by the extent of your transfer units, your time commitment, and your determination to proceed at a faster rate.

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WGU publishes an Institutional Catalog, which describes the academic requirements of each degree program. Although students are required to complete the program version current at the time of their enrollment, WGU may modify requirements and course offerings within that version of the program to maintain the currency and relevance of WGU's competencies and programs. When program requirements are updated, students readmitting after withdrawal from the university will be expected to re-enter into the most current catalog version of the program.

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The following section includes the areas of study in the program, with their associated courses. Your specific learning resources and level of instructional support will vary based on the individual competencies you bring to the program and your confidence in developing the knowledge, skills, and abilities required in each area of the degree. The Degree Plan and learning resources are dynamic, so you need to review your Degree Plan and seek the advice of your mentor regarding the resources before you purchase them.

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The Data Analytics Journey gives an overview of the entire analytics life cycle. Learners gain fluency in data analytics terminology, tools, and techniques. The course contextualizes the data analytics journey firmly with organizational metrics and requirements to position graduates to answer key questions for businesses and other employers. This course has no prerequisites.

*This course covers the following competencies:*

*Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*

*The graduate explains the phases of the data analytics life cycle to contextualize and define the scope of each phase.*

*The graduate develops a project plan to solve organizational problems.*

*The graduate determines organizational requirements to improve key drivers.*

*The graduate identifies appropriate data analytics tools and techniques to solve organizational problems.*

Data Cleaning continues building proficiency in the data analytics life cycle with data preparation skills. This course addresses exploring, transforming, and imputing data as well as handling outliers. Learners write code to manipulate, structure, and clean data as well as to reduce features in data sets. The following courses are prerequisites: The Data Analytics Journey, and Data Acquisition.

*This course covers the following competencies:*

*Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*

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findings and the limitations of those findings accurately to organizational leaders. Exploratory Data Analysis is a prerequisite for this course.

*This course covers the following competencies:*

*Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*

*The graduate employs logistic regression algorithms to describe phenomena.*

*The graduate employs multiple regression algorithms with categorical and numerical predictors in describing phenomena.*

*The graduate makes assertions based on regression modeling.*

Advanced Data Analytics prepares students for career-long growth in steadily advancing tools and techniques and provides emerging concepts in data analysis. This course hones the mental and theoretical flexibility that will be required of analysts in the coming decades while grounding their approach firmly in ethical and organizational-need-focused practice. Topics include machine learning, neural networks, randomness, and unconventional data sources. Data Mining II is a prerequisite for this course.

*This course covers the following competencies:*

*Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*

*The graduate builds neural networks in the context of machine-learning modeling.*

*The graduate applies time series models in generating forecasts.*

*The graduate extracts insights from text data using effective and appropriate natural processing (NLP) models.*

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Data Acquisition builds proficiency in Structured Query Language (SQL) and the initial stages of the data analytics lifecycle. The course introduces relational databases. Students gain concrete skills in data transference and database manipulation. There are no prerequisites.

*This course covers the following competencies:*

*Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*

*The graduate examines the data available for analysis to determine their dimension, quality, relations, and limitations.*

*The graduate implements physical data models.*

*The graduate performs table operations and queries within the context of data acquisition for analysis.*

Advanced Data Acquisition enhances theoretical and SQL skills in furthering the data analytics life cycle. This course covers advanced SQL operations, aggregating data, and acquiring data from various sources in support of core organizational needs. The prerequisite for this course is Representation and Reporting.

*This course covers the following competencies:*

*Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*

*The graduate applies advanced SQL operations to integrate multiple data sources.*

*The graduate explores data acquisition.*

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Data Mining I expands predictive modeling into nonlinear dimensions, enhancing the capabilities and effectiveness of the data analytics lifecycle. In this course, learners implement supervised models—specifically classification and prediction data mining models—to unearth relationships among variables that are not apparent with more surface-level techniques. The course provides frameworks for assessing models' sensitivity and specificity. D208 Predictive Modeling is a prerequisite to this course.

*This course covers the following competencies:*

*Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*

*The graduate applies observations to appropriate classes and categories using classification models.*

*The graduate implements prediction data mining models to find hard-to-spot relationships among variables.*

*The graduate evaluates data mining model performance for precision, accuracy, and model comparison.*

Data Mining II adds vital tools to data analytics arsenal that incorporates unsupervised models. This course explains when, how, and why to use these tools to best meet organizational needs. The prerequisite for this course is Advanced Data Acquisition.

*This course covers the following competencies:*

*Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*

*The graduate applies clustering techniques to accurately predict outcomes of interest.*

*The graduate implements dimension reduction methods to identify significant variables.*

*The graduate predicts patterns in data using association rules and lift analysis.*

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Representation and Reporting focuses on communicating observations and patterns to diverse stakeholders, a key aspect of the data analytics life cycle. This course helps students gain communication and storytelling skills. It also covers data visualizations, audio representations, and interactive dashboards. The prerequisite for this course is Data Mining I.

*This course covers the following competencies:*

*Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*

*The graduate communicates data insights to technical and nontechnical audiences.*

*The graduate creates data representations to offer insight into an organizational problem.*

*The graduate designs executive decision support with interactive tools.*

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The Data Analytics Graduate Capstone allows students to apply the academic and professional abilities developed as a graduate student. This capstone challenges students to integrate skills and knowledge from several program domains into one project. Advanced Data Analytics is a prerequisite for this course.

*This course covers the following competencies:*

*The graduate integrates and synthesizes competencies from across the degree program, thereby demonstrating the ability to participate in and contribute value to the chosen professional field.*

Western Governors University is committed to providing equal access to its academic programs to all qualified students. WGU's Accessibility Services team supports this mission by providing support, resources, advocacy, collaboration, and academic accommodations for students with disabilities and other qualifying conditions under the Americans with Disabilities Act (ADA). WGU encourages student to complete the Accommodation Request Form as soon as they become aware of the need for an accommodation. Current and prospective students can reach the Accessibility Services team Monday through Friday 8:00 a.m. to 5:00 p.m. MST at 1-877-HELP-WGU (877-435-7948) x5922 or at ADASupport@wgu.edu.

WGU's Student Services team is dedicated exclusively to helping you achieve your academic goals. The Student Services office is available during extended hours to assist with general questions and requests. The Student Services team members help you resolve issues, listen to student issues and concerns, and make recommendations for improving policy and practice based on student feedback.

Student Services team members also assist with unresolved concerns to find equitable resolutions. To contact the Student Services team, please feel free to call 877-435-7948 or e-mail [studentservices@wgu.edu](mailto:studentservices@wgu.edu). We are available Monday through Friday from 6:00 a.m. to 10:00 p.m., Saturday from 7:00 a.m. to 7:00 p.m., mountain standard time. Closed Sundays.

If you have inquiries or concerns that require technical support, please contact the WGU IT Service Desk. The IT Service Desk is available Monday through Friday, 6:00 a.m. to 10:00 p.m. and Saturday and Sunday, 10:00 a.m. to 7:00 p.m., mountain standard time. To contact the IT Service Desk, please call 1-877-HELP-WGU (877-435-7948) or e-mail [servicedesk@wgu.edu](mailto:servicedesk@wgu.edu). The support teams are generally closed in observance of university holidays.

For the most current information regarding WGU support services, please visit "Student Support" on the Student Portal at <http://my.wgu.edu>.