3462 Program Vocational Learning Outcome

Program Vocational Learning Outcomes describe what graduates of the program have demonstrated they can do with the knowledge and skills they have achieved during their studies. The outcomes are closely tied to the needs of the workplace. Through assessment (e.g., assignments and tests), students verify their ability to reliably perform these outcomes before graduating.

1. Design, develop, integrate, document, implement, maintain and test secure software systems based on software engineering methodologies, modern programming paradigms and frameworks.
2. Analyze, evaluate and apply appropriate software engineering design techniques, data structures and algorithms, and patterns to the implementation of a software system.
3. Design and implement appropriate testing, verification and evaluation procedures to assess software quality and improve software performance.
4. Design, model, implement, optimize and maintain a database, data mining, or big data solutions.
5. Develop and maintain software systems through the application of networking concepts as related to distributed systems and AI implementations.
6. Analyze, design, and implement integrated AI solutions that address issues of data privacy and security.
7. Work effectively as a member of a software development team on the design, implementation and testing of a software system.
8. Use project management principles, tools and techniques to ensure the timely and successful completion of projects.
9. Analyze and design effective data visualizations to provide business insights to AI solutions and communicate information to the viewer.
10. Complete all work in compliance with laws, regulations, data governance, and professional ethics relevant to the AI industry.
11. Develop and implement strategies for personal, career and entrepreneurial development to enhance work performance and maintain currency with the AI industry.
12. Analyze, evaluate, and integrate machine learning algorithms into various applications to support decision-making and build automated software solutions.
13. Evaluate AI tools and techniques to design software solutions for a variety of business problems.
14. Design, develop, and deploy various intelligent conversational interfaces for different platforms.