

Faith, Work & Technical Integrity

MRR-RV225 • Original optional Christian formation companion • 15 weeks

This is a voluntary Scripture-centered companion, not a required element of the technical course and not part of any proposed credit-hour calculation. It is not affiliated with or endorsed by any specific seminary, university, minister, or accreditation organization. The student technical curriculum is fully usable without this component.

Guiding disciplines: honest testimony, charitable service, intellectual humility, stewardship, diligence, and attention to the neighbor who depends on safe workmanship.

Week 01: Systems engineering, requirements and acceptance criteria

Scripture for study: Genesis 1:28. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

Christian vocation joins conviction with accountable practice. In this week, examine how the technical claim is supported, what it leaves unresolved, and whether a customer would be served by hearing both the evidence and its limitations. Excellence in craftsmanship should be testable: accurate measurements, clear records, a willingness to correct error, and a refusal to conceal risk.

Reflection: What would integrity look like in the systems engineering, requirements and acceptance criteria case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 02: Electrical load profiles and demand diversity

Scripture for study: Psalm 104:24. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the electrical load profiles and demand diversity case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 03: Photovoltaics, charge control and solar resource uncertainty

Scripture for study: Proverbs 21:5. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the photovoltaics, charge control and solar resource uncertainty case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 04: Battery systems, protection and thermal design

Scripture for study: Proverbs 16:9. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the battery systems, protection and thermal design case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 05: AC power architecture and source transfer

Scripture for study: Proverbs 22:3. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the ac power architecture and source transfer case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 06: Grounding, bonding and system protection reasoning

Scripture for study: Nehemiah 4:17. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the grounding, bonding and system protection reasoning case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 07: Sensors, instrumentation and control-loop stability

Scripture for study: Proverbs 3:5-6. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the sensors, instrumentation and control-loop stability case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 08: Actuation, mechanisms and mechanical energy

Scripture for study: Psalm 90:17. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the actuation, mechanisms and mechanical energy case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 09: Structures, joints and fatigue in mobile environments

Scripture for study: Proverbs 24:27. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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and its limitations. Excellence in craftsmanship should be testable: accurate measurements, clear records, a willingness to correct error, and a refusal to conceal risk.

Reflection: What would integrity look like in the structures, joints and fatigue in mobile environments case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 10: Thermal management and heat exchanger selection

Scripture for study: 1 Corinthians 14:40. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the thermal management and heat exchanger selection case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 11: Appliance systems integration and environmental loads

Scripture for study: 1 Peter 4:10. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the appliance systems integration and environmental loads case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 12: Custom components, 3D printing and serviceability

Scripture for study: James 3:17. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the custom components, 3d printing and serviceability case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 13: Subsystem prototype and low-energy integration

Scripture for study: Proverbs 27:23. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the subsystem prototype and low-energy integration case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 14: Verification, validation and configuration management

Scripture for study: Proverbs 12:22. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the verification, validation and configuration management case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that acknowledges uncertainty, protects the customer, and serves the truth.

Week 15: Final engineering design review and oral defense

Scripture for study: Colossians 3:23-24. Read the passage in context and consider its original audience and application rather than treating it as a mechanical design manual.

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Reflection: What would integrity look like in the final engineering design review and oral defense case if the most profitable recommendation were not the best-supported one? Draft a 150-word application that

acknowledges uncertainty, protects the customer, and serves the truth.

Educational note

These reflections are original MRR companion material and not a reproduction of the theology, lectures, or pedagogy of any named author. Faith reflections are voluntary and do not replace objective technical performance assessments.