

Twice Born Ministry

CHEM-101: General Chemistry I with Lab Stewardship

Course Code: CHEM-101

Credit Hours: 3

King James Version (KJV) — Sola Scriptura Curriculum

Generated 2026-07-02

Course Description

CHEM-101: General Chemistry I with Lab Stewardship

Course Description

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

This course is part of **Layer 4 — Career Tracks** (Track E: STEM / Mathematics / Sciences) in the Twice Born Ministry Bible School catalog. **College category:** Chemistry.

Course Details

| Field | Value |

|-----|-----|

| **Course Code** | CHEM-101 |

| **Career Track** | E — STEM / Mathematics / Sciences |

| **Catalog Track** | General Chemistry |

| **College Category** | Chemistry |

| **Credit Hours** | 3 |

| **Weeks** | 12 |

| **Lessons** | 12 |

| **Prerequisites** | SCI-101; MATH-101 recommended |

| **Homeschool Band** | College |

| **Primary Text** | King James Version (KJV) |

| **Source / Resources** | OpenStax Chemistry awareness; Proverbs 25:2 |

TBM Cross-References

- Proverbs 25:2 (KJV)

- • SCI-101

Learning Outcomes

Upon completion, students will be able to:

1. Explain core concepts and vocabulary for this vocational domain at college introductory level.
2. Apply biblical ethics when secular models conflict with Kingdom priorities.

3. Complete practical assignments, scenarios, or lab exercises with documented integrity.
4. Articulate connections between vocation, stewardship, and local church ministry.
5. Pass module quizzes and capstone assessments at 70% or higher.

Assessment Overview

- **Module quizzes:** JSON per module (multiple choice + short answer).
- **Assignments:** 3–4 rubric-graded projects.
- **Group projects:** 2 collaborative exercises.
- **Final exam:** Comprehensive short and extended responses.
- **Video scripts:** 3–5 instructor scripts for optional production.

Christian Guardrails

- KJV citation standard; Christ-centered instruction.
- Career exploration does not replace licensure, trade apprenticeships, or professional counsel where required.
- AI tools may assist research but not replace original work or pastoral judgment.

Instructor Notes

Professor Shepherd AI instructor shortcode: [tb_ai_instructor course_code="CHEM-101"]

Twice Born Ministry Bible School — Layer 4 Career Tracks

Course Modules

CHEM-101 — Lesson 1: Chemistry as Search for Hidden Things

Introduction

Welcome to Lesson 1 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Chemistry as Search for Hidden Things** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

This is **Layer 4 — Career Tracks** content at college level (or high school dual-enrollment where noted). The King James Version remains the citation standard for all scripture. Complete BS-FND-100 or listed prerequisites before advanced modules.

Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —” Integrity

A false balance is abomination to the LORD: but a just weight is his delight (Proverbs 11:1, KJV). Honest weights apply to ledgers, polls, and platform metrics alike.

Apply this principle while studying **Chemistry as Search for Hidden Things**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Chemistry as Search for Hidden Things

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
- Identify biblical principles that govern ethical decisions in this domain.
- Complete hands-on or scenario-based exercises in assignments and quizzes.
- Connect vocational skills to local church ministry or community service where applicable.

Professional Standards

Career track courses prepare students for further education, certification programs, or bi-vocational ministry—they do not replace licensure, trade union apprenticeships, CPA/legal counsel, or seminary ordination tracks unless explicitly stated in prerequisites.

TBM & Catalog Cross-References

- Proverbs 25:2 (KJV)
- • SCI-101

Application for Vocation and Ministry

Chemistry as Search for Hidden Things should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

Local church: Share one insight with your pastor, deacon team, or small group—especially where bi-vocational ministry applies.

Evangelism: Prepare a 60-second testimony linking honest work or digital stewardship to the gospel hope you profess.

Lab, Scenario, or Field Exercise

Exercise 1: Role-play a pastoral visit, counseling intake, or board meeting scenario. Debrief using scripture and ethics checklists.

Document assumptions, resources consulted, and limitations. Submit via LMS with honor statement. Supervised field hours may count toward capstone portfolios where approved by cohort facilitator.

Discussion Questions

How does **Chemistry as Search for Hidden Things** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 1 Summary: We examined **Chemistry as Search for Hidden Things** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to Lesson 2. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

Soli Deo gloria — whether ye eat or drink, or whatsoever ye do, do all to the glory of God (1 Corinthians 10:31).

Ministry Case Study

Imagine a congregant confused about this lesson's topic after watching online teaching that contradicts historic evangelical doctrine. Draft a pastoral response email that (1) expresses empathy, (2) clarifies biblical teaching with two references, (3) invites in-person conversation, and (4) avoids condescension. Pastoral communication is part of theological training, not an optional soft skill.

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Historical Figure Spotlight

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Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

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Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

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CHEM-101 — Lesson 2: Matter, Elements, and the Periodic Table

Introduction

Welcome to Lesson 2 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Matter, Elements, and the Periodic Table** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

This is **Layer 4 — Career Tracks** content at college level (or high school dual-enrollment where noted). The King James Version remains the citation standard for all scripture. Complete BS-FND-100 or listed prerequisites before advanced modules.

Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —” Stewardship

The earth is the LORD's, and the fulness thereof (Psalm 24:1, KJV). Every vocation—"accounting, medicine, media, or cloud engineering—"is borrowed stewardship.

Apply this principle while studying **Matter, Elements, and the Periodic Table**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Matter, Elements, and the Periodic Table

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
- Identify biblical principles that govern ethical decisions in this domain.
- Complete hands-on or scenario-based exercises in assignments and quizzes.
- Connect vocational skills to local church ministry or community service where applicable.

Professional Standards

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ordination tracks unless explicitly stated in prerequisites.

TBM & Catalog Cross-References

- Proverbs 25:2 (KJV)

- • SCI-101

Application for Vocation and Ministry

Matter, Elements, and the Periodic Table should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

Local church: Share one insight with your pastor, deacon team, or small group—especially where bi-vocational ministry applies.

Evangelism: Prepare a 60-second testimony linking honest work or digital stewardship to the gospel hope you profess.

Lab, Scenario, or Field Exercise

Exercise 2: Role-play a pastoral visit, counseling intake, or board meeting scenario. Debrief using scripture and ethics checklists.

Document assumptions, resources consulted, and limitations. Submit via LMS with honor statement. Supervised field hours may count toward capstone portfolios where approved by cohort facilitator.

Discussion Questions

How does **Matter, Elements, and the Periodic Table** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 2 Summary: We examined **Matter, Elements, and the Periodic Table** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to Lesson 3. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

Soli Deo gloria — whether ye eat or drink, or whatsoever ye do, do all to the glory of God (1 Corinthians 10:31).

Historical Figure Spotlight

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Supplemental Reading and Reflection

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Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

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CHEM-101 — Lesson 3: Atomic Structure and Electron Configuration

Introduction

Welcome to Lesson 3 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Atomic Structure and Electron Configuration** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

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Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —" Truth

Buy the truth, and sell it not (Proverbs 23:23, KJV). Financial reports, news scripts, and research data must reflect reality—"not convenience.

Apply this principle while studying **Atomic Structure and Electron Configuration**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Atomic Structure and Electron Configuration

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
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TBM & Catalog Cross-References

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Application for Vocation and Ministry

Atomic Structure and Electron Configuration should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

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Discussion Questions

How does **Atomic Structure and Electron Configuration** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 3 Summary: We examined **Atomic Structure and Electron Configuration** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to Lesson 4. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

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Supplemental Reading and Reflection

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Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

CHEM-101 — Lesson 4: Chemical Bonding and Molecular Geometry

Introduction

Welcome to Lesson 4 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Chemical Bonding and Molecular Geometry** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

This is **Layer 4 — Career Tracks** content at college level (or high school dual-enrollment where noted). The King James Version remains the citation standard for all scripture. Complete BS-FND-100 or listed prerequisites before advanced modules.

Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —" Integrity

A false balance is abomination to the LORD: but a just weight is his delight (Proverbs 11:1, KJV). Honest weights apply to ledgers, polls, and platform metrics alike.

Apply this principle while studying **Chemical Bonding and Molecular Geometry**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Chemical Bonding and Molecular Geometry

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
- Identify biblical principles that govern ethical decisions in this domain.
- Complete hands-on or scenario-based exercises in assignments and quizzes.
- Connect vocational skills to local church ministry or community service where applicable.

Professional Standards

Career track courses prepare students for further education, certification programs, or bi-vocational ministry—they do not replace licensure, trade union apprenticeships, CPA/legal counsel, or seminary ordination tracks unless explicitly stated in prerequisites.

TBM & Catalog Cross-References

- Proverbs 25:2 (KJV)
- • SCI-101

Application for Vocation and Ministry

Chemical Bonding and Molecular Geometry should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

Local church: Share one insight with your pastor, deacon team, or small group—especially where bi-vocational ministry applies.

Evangelism: Prepare a 60-second testimony linking honest work or digital stewardship to the gospel hope you profess.

Lab, Scenario, or Field Exercise

Exercise 4: Role-play a pastoral visit, counseling intake, or board meeting scenario. Debrief using scripture and ethics checklists.

Document assumptions, resources consulted, and limitations. Submit via LMS with honor statement. Supervised field hours may count toward capstone portfolios where approved by cohort facilitator.

Discussion Questions

How does **Chemical Bonding and Molecular Geometry** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 4 Summary: We examined **Chemical Bonding and Molecular Geometry** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to Lesson 5. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

Soli Deo gloria — whether ye eat or drink, or whatsoever ye do, do all to the glory of God (1 Corinthians 10:31).

Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

Ministry Case Study

Imagine a congregant confused about this lesson's topic after watching online teaching that contradicts historic evangelical doctrine. Draft a pastoral response email that (1) expresses empathy, (2) clarifies biblical teaching with two references, (3) invites in-person conversation, and (4) avoids condescension. Pastoral communication is part of theological training, not an optional soft skill.

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

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Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

Ministry Case Study

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Worship Integration

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Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

Ministry Case Study

Imagine a congregant confused about this lesson's topic after watching online teaching that contradicts historic evangelical doctrine. Draft a pastoral response email that (1) expresses empathy, (2) clarifies biblical teaching with two references, (3) invites in-person conversation, and (4) avoids condescension. Pastoral communication is part of theological training, not an optional soft skill.

Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Ministry Case Study

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Ministry Case Study

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CHEM-101 — Lesson 5: Nomenclature and Formula Writing

Introduction

Welcome to Lesson 5 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Nomenclature and Formula Writing** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

This is **Layer 4 — Career Tracks** content at college level (or high school dual-enrollment where noted). The King James Version remains the citation standard for all scripture. Complete BS-FND-100 or listed prerequisites before advanced modules.

Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —" Stewardship

The earth is the LORD's, and the fulness thereof (Psalm 24:1, KJV). Every vocation—"accounting, medicine, media, or cloud engineering—"is borrowed stewardship.

Apply this principle while studying **Nomenclature and Formula Writing**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Nomenclature and Formula Writing

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
- Identify biblical principles that govern ethical decisions in this domain.
- Complete hands-on or scenario-based exercises in assignments and quizzes.
- Connect vocational skills to local church ministry or community service where applicable.

Professional Standards

Career track courses prepare students for further education, certification programs, or bi-vocational ministry—they do not replace licensure, trade union apprenticeships, CPA/legal counsel, or seminary ordination tracks unless explicitly stated in prerequisites.

TBM & Catalog Cross-References

- Proverbs 25:2 (KJV)

- • SCI-101

Application for Vocation and Ministry

Nomenclature and Formula Writing should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

Local church: Share one insight with your pastor, deacon team, or small group—especially where bi-vocational ministry applies.

Evangelism: Prepare a 60-second testimony linking honest work or digital stewardship to the gospel hope you profess.

Lab, Scenario, or Field Exercise

Exercise 5: Role-play a pastoral visit, counseling intake, or board meeting scenario. Debrief using scripture and ethics checklists.

Document assumptions, resources consulted, and limitations. Submit via LMS with honor statement. Supervised field hours may count toward capstone portfolios where approved by cohort facilitator.

Discussion Questions

How does **Nomenclature and Formula Writing** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 5 Summary: We examined **Nomenclature and Formula Writing** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to Lesson 6. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

Soli Deo gloria — whether ye eat or drink, or whatsoever ye do, do all to the glory of God (1 Corinthians 10:31).

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Historical Figure Spotlight

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Ministry Case Study

Imagine a congregant confused about this lesson's topic after watching online teaching that contradicts historic evangelical doctrine. Draft a pastoral response email that (1) expresses empathy, (2) clarifies biblical teaching with two references, (3) invites in-person conversation, and (4) avoids condescension. Pastoral communication is part of theological training, not an optional soft skill.

Ministry Case Study

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Historical Figure Spotlight

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Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

Worship Integration

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Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

CHEM-101 — Lesson 6: Mole Concept and Stoichiometry

Introduction

Welcome to Lesson 6 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Mole Concept and Stoichiometry** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

This is **Layer 4 — Career Tracks** content at college level (or high school dual-enrollment where noted). The King James Version remains the citation standard for all scripture. Complete BS-FND-100 or listed prerequisites before advanced modules.

Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —" Truth

Buy the truth, and sell it not (Proverbs 23:23, KJV). Financial reports, news scripts, and research data must reflect reality—"not convenience.

Apply this principle while studying **Mole Concept and Stoichiometry**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Mole Concept and Stoichiometry

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
- Identify biblical principles that govern ethical decisions in this domain.
- Complete hands-on or scenario-based exercises in assignments and quizzes.
- Connect vocational skills to local church ministry or community service where applicable.

Professional Standards

Career track courses prepare students for further education, certification programs, or bi-vocational ministry—they do not replace licensure, trade union apprenticeships, CPA/legal counsel, or seminary ordination tracks unless explicitly stated in prerequisites.

TBM & Catalog Cross-References

- Proverbs 25:2 (KJV)

- • SCI-101

Application for Vocation and Ministry

Mole Concept and Stoichiometry should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

Local church: Share one insight with your pastor, deacon team, or small group—especially where bi-vocational ministry applies.

Evangelism: Prepare a 60-second testimony linking honest work or digital stewardship to the gospel hope you profess.

Lab, Scenario, or Field Exercise

Exercise 6: Role-play a pastoral visit, counseling intake, or board meeting scenario. Debrief using scripture and ethics checklists.

Document assumptions, resources consulted, and limitations. Submit via LMS with honor statement. Supervised field hours may count toward capstone portfolios where approved by cohort facilitator.

Discussion Questions

How does **Mole Concept and Stoichiometry** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 6 Summary: We examined **Mole Concept and Stoichiometry** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to Lesson 7. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

Soli Deo gloria — whether ye eat or drink, or whatsoever ye do, do all to the glory of God (1 Corinthians 10:31).

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word.

Write a half-page response connecting supplemental reading to this lesson's theme.

Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

Worship Integration

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Ministry Case Study

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Historical Figure Spotlight

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Historical Figure Spotlight

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Worship Integration

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Ministry Case Study

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Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Worship Integration

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Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

CHEM-101 — Lesson 7: Reactions in Aqueous Solutions

Introduction

Welcome to Lesson 7 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Reactions in Aqueous Solutions** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

This is **Layer 4 — Career Tracks** content at college level (or high school dual-enrollment where noted). The King James Version remains the citation standard for all scripture. Complete BS-FND-100 or listed prerequisites before advanced modules.

Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —" Integrity

A false balance is abomination to the LORD: but a just weight is his delight (Proverbs 11:1, KJV). Honest weights apply to ledgers, polls, and platform metrics alike.

Apply this principle while studying **Reactions in Aqueous Solutions**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Reactions in Aqueous Solutions

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
- Identify biblical principles that govern ethical decisions in this domain.
- Complete hands-on or scenario-based exercises in assignments and quizzes.
- Connect vocational skills to local church ministry or community service where applicable.

Professional Standards

Career track courses prepare students for further education, certification programs, or bi-vocational ministry—they do not replace licensure, trade union apprenticeships, CPA/legal counsel, or seminary ordination tracks unless explicitly stated in prerequisites.

TBM & Catalog Cross-References

- Proverbs 25:2 (KJV)

- • SCI-101

Application for Vocation and Ministry

Reactions in Aqueous Solutions should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

Local church: Share one insight with your pastor, deacon team, or small group—especially where bi-vocational ministry applies.

Evangelism: Prepare a 60-second testimony linking honest work or digital stewardship to the gospel hope you profess.

Lab, Scenario, or Field Exercise

Exercise 7: Role-play a pastoral visit, counseling intake, or board meeting scenario. Debrief using scripture and ethics checklists.

Document assumptions, resources consulted, and limitations. Submit via LMS with honor statement. Supervised field hours may count toward capstone portfolios where approved by cohort facilitator.

Discussion Questions

How does **Reactions in Aqueous Solutions** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 7 Summary: We examined **Reactions in Aqueous Solutions** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to Lesson 8. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

Soli Deo gloria — whether ye eat or drink, or whatsoever ye do, do all to the glory of God (1 Corinthians 10:31).

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Ministry Case Study

Imagine a congregant confused about this lesson's topic after watching online teaching that contradicts historic evangelical doctrine. Draft a pastoral response email that (1) expresses empathy, (2) clarifies biblical teaching with two references, (3) invites in-person conversation, and (4) avoids condescension. Pastoral communication is part of theological training, not an optional soft skill.

Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

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Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

Ministry Case Study

Imagine a congregant confused about this lesson's topic after watching online teaching that contradicts historic evangelical doctrine. Draft a pastoral response email that (1) expresses empathy, (2) clarifies biblical teaching with two references, (3) invites in-person conversation, and (4) avoids condescension. Pastoral communication is part of theological training, not an optional soft skill.

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Historical Figure Spotlight

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Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

Supplemental Reading and Reflection

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CHEM-101 — Lesson 8: Thermochemistry and Enthalpy

Introduction

Welcome to Lesson 8 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Thermochemistry and Enthalpy** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

This is **Layer 4 — Career Tracks** content at college level (or high school dual-enrollment where noted). The King James Version remains the citation standard for all scripture. Complete BS-FND-100 or listed prerequisites before advanced modules.

Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —" Stewardship

The earth is the LORD's, and the fulness thereof (Psalm 24:1, KJV). Every vocation—"accounting, medicine, media, or cloud engineering—"is borrowed stewardship.

Apply this principle while studying **Thermochemistry and Enthalpy**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Thermochemistry and Enthalpy

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
- Identify biblical principles that govern ethical decisions in this domain.
- Complete hands-on or scenario-based exercises in assignments and quizzes.
- Connect vocational skills to local church ministry or community service where applicable.

Professional Standards

Career track courses prepare students for further education, certification programs, or bi-vocational ministry—they do not replace licensure, trade union apprenticeships, CPA/legal counsel, or seminary ordination tracks unless explicitly stated in prerequisites.

TBM & Catalog Cross-References

- Proverbs 25:2 (KJV)
- • SCI-101

Application for Vocation and Ministry

Thermochemistry and Enthalpy should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

Local church: Share one insight with your pastor, deacon team, or small group—especially where bi-vocational ministry applies.

Evangelism: Prepare a 60-second testimony linking honest work or digital stewardship to the gospel hope you profess.

Lab, Scenario, or Field Exercise

Exercise 8: Role-play a pastoral visit, counseling intake, or board meeting scenario. Debrief using scripture and ethics checklists.

Document assumptions, resources consulted, and limitations. Submit via LMS with honor statement. Supervised field hours may count toward capstone portfolios where approved by cohort facilitator.

Discussion Questions

How does **Thermochemistry and Enthalpy** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 8 Summary: We examined **Thermochemistry and Enthalpy** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to Lesson 9. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

Soli Deo gloria — whether ye eat or drink, or whatsoever ye do, do all to the glory of God (1 Corinthians 10:31).

Ministry Case Study

Imagine a congregant confused about this lesson's topic after watching online teaching that contradicts historic evangelical doctrine. Draft a pastoral response email that (1) expresses empathy, (2) clarifies biblical teaching with two references, (3) invites in-person conversation, and (4) avoids condescension. Pastoral communication is part of theological training, not an optional soft skill.

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

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Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

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Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

Worship Integration

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Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

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Historical Figure Spotlight

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Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

CHEM-101 — Lesson 9: Gases and Gas Laws

Introduction

Welcome to Lesson 9 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Gases and Gas Laws** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

This is **Layer 4 — Career Tracks** content at college level (or high school dual-enrollment where noted). The King James Version remains the citation standard for all scripture. Complete BS-FND-100 or listed prerequisites before advanced modules.

Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —” Truth

Buy the truth, and sell it not (Proverbs 23:23, KJV). Financial reports, news scripts, and research data must reflect reality—not convenience.

Apply this principle while studying **Gases and Gas Laws**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Gases and Gas Laws

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
- Identify biblical principles that govern ethical decisions in this domain.
- Complete hands-on or scenario-based exercises in assignments and quizzes.

- Connect vocational skills to local church ministry or community service where applicable.

Professional Standards

Career track courses prepare students for further education, certification programs, or bi-vocational ministry—they do not replace licensure, trade union apprenticeships, CPA/legal counsel, or seminary ordination tracks unless explicitly stated in prerequisites.

TBM & Catalog Cross-References

- Proverbs 25:2 (KJV)

- • SCI-101

Application for Vocation and Ministry

Gases and Gas Laws should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

Local church: Share one insight with your pastor, deacon team, or small group—especially where bi-vocational ministry applies.

Evangelism: Prepare a 60-second testimony linking honest work or digital stewardship to the gospel hope you profess.

Lab, Scenario, or Field Exercise

Exercise 9: Role-play a pastoral visit, counseling intake, or board meeting scenario. Debrief using scripture and ethics checklists.

Document assumptions, resources consulted, and limitations. Submit via LMS with honor statement. Supervised field hours may count toward capstone portfolios where approved by cohort facilitator.

Discussion Questions

How does **Gases and Gas Laws** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 9 Summary: We examined **Gases and Gas Laws** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to Lesson 10. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

Soli Deo gloria — whether ye eat or drink, or whatsoever ye do, do all to the glory of God (1 Corinthians 10:31).

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Ministry Case Study

Imagine a congregant confused about this lesson's topic after watching online teaching that contradicts historic evangelical doctrine. Draft a pastoral response email that (1) expresses empathy, (2) clarifies biblical teaching with two references, (3) invites in-person conversation, and (4) avoids condescension. Pastoral communication is part of theological training, not an optional soft skill.

Ministry Case Study

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Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Historical Figure Spotlight

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Historical Figure Spotlight

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Historical Figure Spotlight

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Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

Worship Integration

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Ministry Case Study

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Historical Figure Spotlight

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CHEM-101 — Lesson 10: Acids, Bases, and pH Stewardship

Introduction

Welcome to Lesson 10 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Acids, Bases, and pH Stewardship** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

This is **Layer 4 — Career Tracks** content at college level (or high school dual-enrollment where noted). The King James Version remains the citation standard for all scripture. Complete BS-FND-100 or listed prerequisites before advanced modules.

Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —" Integrity

A false balance is abomination to the LORD: but a just weight is his delight (Proverbs 11:1, KJV). Honest weights apply to ledgers, polls, and platform metrics alike.

Apply this principle while studying **Acids, Bases, and pH Stewardship**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Acids, Bases, and pH Stewardship

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
- Identify biblical principles that govern ethical decisions in this domain.
- Complete hands-on or scenario-based exercises in assignments and quizzes.
- Connect vocational skills to local church ministry or community service where applicable.

Professional Standards

Career track courses prepare students for further education, certification programs, or bi-vocational ministry—they do not replace licensure, trade union apprenticeships, CPA/legal counsel, or seminary ordination tracks unless explicitly stated in prerequisites.

TBM & Catalog Cross-References

- Proverbs 25:2 (KJV)
- • SCI-101

Application for Vocation and Ministry

Acids, Bases, and pH Stewardship should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

Local church: Share one insight with your pastor, deacon team, or small group—especially where bi-vocational ministry applies.

Evangelism: Prepare a 60-second testimony linking honest work or digital stewardship to the gospel hope you profess.

Lab, Scenario, or Field Exercise

Exercise 10: Role-play a pastoral visit, counseling intake, or board meeting scenario. Debrief using scripture and ethics checklists.

Document assumptions, resources consulted, and limitations. Submit via LMS with honor statement. Supervised field hours may count toward capstone portfolios where approved by cohort facilitator.

Discussion Questions

How does **Acids, Bases, and pH Stewardship** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 10 Summary: We examined **Acids, Bases, and pH Stewardship** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to Lesson 11. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

Soli Deo gloria — whether ye eat or drink, or whatsoever ye do, do all to the glory of God (1 Corinthians 10:31).

Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

Ministry Case Study

Imagine a congregant confused about this lesson's topic after watching online teaching that contradicts historic evangelical doctrine. Draft a pastoral response email that (1) expresses empathy, (2) clarifies biblical teaching with two references, (3) invites in-person conversation, and (4) avoids condescension. Pastoral communication is part of theological training, not an optional soft skill.

Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

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Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

Supplemental Reading and Reflection

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Worship Integration

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CHEM-101 — Lesson 11: Lab Safety, SDS, and Reproducibility Ethics

Introduction

Welcome to Lesson 11 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Lab Safety, SDS, and Reproducibility Ethics** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

This is **Layer 4 — Career Tracks** content at college level (or high school dual-enrollment where noted). The King James Version remains the citation standard for all scripture. Complete BS-FND-100 or listed prerequisites before advanced modules.

Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —" Stewardship

The earth is the LORD's, and the fulness thereof (Psalm 24:1, KJV). Every vocation—"accounting, medicine, media, or cloud engineering—"is borrowed stewardship.

Apply this principle while studying **Lab Safety, SDS, and Reproducibility Ethics**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Lab Safety, SDS, and Reproducibility Ethics

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
- Identify biblical principles that govern ethical decisions in this domain.
- Complete hands-on or scenario-based exercises in assignments and quizzes.
- Connect vocational skills to local church ministry or community service where applicable.

Professional Standards

Career track courses prepare students for further education, certification programs, or bi-vocational ministry—they do not replace licensure, trade union apprenticeships, CPA/legal counsel, or seminary ordination tracks unless explicitly stated in prerequisites.

TBM & Catalog Cross-References

- Proverbs 25:2 (KJV)
- • SCI-101

Application for Vocation and Ministry

Lab Safety, SDS, and Reproducibility Ethics should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

Local church: Share one insight with your pastor, deacon team, or small group—especially where bi-vocational ministry applies.

Evangelism: Prepare a 60-second testimony linking honest work or digital stewardship to the gospel hope you profess.

Lab, Scenario, or Field Exercise

Exercise 11: Role-play a pastoral visit, counseling intake, or board meeting scenario. Debrief using scripture and ethics checklists.

Document assumptions, resources consulted, and limitations. Submit via LMS with honor statement. Supervised field hours may count toward capstone portfolios where approved by cohort facilitator.

Discussion Questions

How does **Lab Safety, SDS, and Reproducibility Ethics** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 11 Summary: We examined **Lab Safety, SDS, and Reproducibility Ethics** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to Lesson 12. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

Soli Deo gloria — whether ye eat or drink, or whatsoever ye do, do all to the glory of God (1 Corinthians 10:31).

Ministry Case Study

Imagine a congregant confused about this lesson's topic after watching online teaching that contradicts historic evangelical doctrine. Draft a pastoral response email that (1) expresses empathy, (2) clarifies biblical teaching with two references, (3) invites in-person conversation, and (4) avoids condescension. Pastoral communication is part of theological training, not an optional soft skill.

Supplemental Reading and Reflection

Assign one chapter from a standard systematic theology textbook or equivalent lecture notes. Summarize the author's definitions, note where Scripture proofs appear, and evaluate whether the Bible truly supports each claim. Theology students must read widely yet judge all teaching by the Word. Write a half-page response connecting supplemental reading to this lesson's theme.

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Historical Figure Spotlight

Research one defender of orthodoxy related to this doctrine—Augustine, Athanasius, Luther, Calvin, Spurgeon, or a modern missionary martyr. Write 150 words on how their context shaped their emphasis. Standing on their shoulders, we inherit confessions forged in controversy. Imitate their courage and Scripture saturation, not necessarily every cultural application.

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Worship Integration

Select a hymn or worship song rich in biblical doctrine (e.g., "Holy, Holy, Holy," "And Can It Be," "A Mighty Fortress"). Analyze its lyrics for theological accuracy in light of this lesson. Lead family worship using that hymn, reading one supporting passage before singing. Theology should enliven corporate praise, not remain abstract.

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CHEM-101 — Lesson 12: Capstone: Chemistry Lab Report with Creation Integration

Introduction

Welcome to Lesson 12 of **General Chemistry I with Lab Stewardship** (CHEM-101). This session explores **Capstone: Chemistry Lab Report with Creation Integration** within the **Track E — STEM / Mathematics / Sciences** pathway at Twice Born Ministry Bible School.

This track provides Liberty/Hillsdale-style quantitative and natural science foundations with creation-stewardship framing—not scientism, but rigorous inquiry under God.

This is **Layer 4 — Career Tracks** content at college level (or high school dual-enrollment where noted). The King James Version remains the citation standard for all scripture. Complete BS-FND-100 or listed prerequisites before advanced modules.

Pray for wisdom before studying. Career competence without Christ-centered character produces skilled workers who build on sand. We pursue excellence **as unto the Lord** (Colossians 3:23).

Christian Ethics Integration —” Truth

Buy the truth, and sell it not (Proverbs 23:23, KJV). Financial reports, news scripts, and research data must reflect reality—”not convenience.

Apply this principle while studying **Capstone: Chemistry Lab Report with Creation Integration**: document ethical decisions, cite KJV where appropriate, and identify when professional practice must yield to conscience.

Core Teaching

Theme: Capstone: Chemistry Lab Report with Creation Integration

The fear of the LORD is the beginning of wisdom: and the knowledge of the holy is understanding (Proverbs 9:10, KJV). Mathematics and natural science reveal order in creation without displacing the Creator.

Through faith we understand that the worlds were framed by the word of God (Hebrews 11:3, KJV). Scientific inquiry honors God when conducted with humility, honesty, and stewardship.

Practical Focus

Atomic structure, bonding, stoichiometry, and reaction principles with honest lab notebooks and safety culture.

Competency targets for this lesson:

- Define key terms and industry-standard vocabulary at introductory level.
- Identify biblical principles that govern ethical decisions in this domain.
- Complete hands-on or scenario-based exercises in assignments and quizzes.
- Connect vocational skills to local church ministry or community service where applicable.

Professional Standards

Career track courses prepare students for further education, certification programs, or bi-vocational ministry—they do not replace licensure, trade union apprenticeships, CPA/legal counsel, or seminary

ordination tracks unless explicitly stated in prerequisites.

TBM & Catalog Cross-References

- Proverbs 25:2 (KJV)

- • SCI-101

Application for Vocation and Ministry

Capstone: Chemistry Lab Report with Creation Integration should change how you work, lead, serve customers, and witness.

Pastoral practice: Draft a ministry response, visit plan, or counseling scenario tied to this lesson. Discuss with mentor or elder board member.

Personal devotion: Write a brief prayer connecting today's vocational theme to Christ's lordship over your schedule, income, and relationships.

Local church: Share one insight with your pastor, deacon team, or small group—especially where bi-vocational ministry applies.

Evangelism: Prepare a 60-second testimony linking honest work or digital stewardship to the gospel hope you profess.

Lab, Scenario, or Field Exercise

Exercise 12: Role-play a pastoral visit, counseling intake, or board meeting scenario. Debrief using scripture and ethics checklists.

Document assumptions, resources consulted, and limitations. Submit via LMS with honor statement. Supervised field hours may count toward capstone portfolios where approved by cohort facilitator.

Discussion Questions

How does **Capstone: Chemistry Lab Report with Creation Integration** align with Colossians 3:23 ("as to the Lord")?

What secular practice in this field most often conflicts with biblical ethics?

Which prerequisite course or TBM resource best supports this lesson?

How would you teach this topic to a high school dual-enrollment student?

What is one measurable action you will take this week based on this lesson?

Summary and Next Steps

Lesson 12 Summary: We examined **Capstone: Chemistry Lab Report with Creation Integration** through scripture, vocational standards, and ministry application.

Action item: Complete the module quiz (70% to pass) and begin assignment work if due this week.

Preview: Continue to the capstone module. Review SPECIALIZATION_SOURCES.md or Kingdom Capital / TBM Marketing docs as listed in your syllabus.

Soli Deo gloria — whether ye eat or drink, or whatsoever ye do, do all to the glory of God (1 Corinthians 10:31).

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Supplemental Reading and Reflection

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Historical Figure Spotlight

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Appendix A — Assignments

Week 01

Week 01 Assignment — Reflection Journal

Course: CHEM-101 · General Chemistry I with Lab Stewardship

Week focus: CHEM-101 — Lesson 1: Chemistry as Search for Hidden Things

Learning objective (Bloom's taxonomy)

Students will **analyze** course content from **CHEM-101 — Lesson 1: Chemistry as Search for Hidden Things** with KJV integration and measurable evidence in the submission.

Task

Analyze: Write a 300–500 word reflection on **CHEM-101 — Lesson 1: Chemistry as Search for Hidden Things**. Include at least two KJV citations and one personal application.

Submit: Text via LMS assignment form. PDF upload optional for longer work.

Grading

Grading mode: Auto-grade eligible (written text).

Pass: 70%

Rubric (100 points)

Auto-grade hints

Keywords for automated pre-check: KJV, Christ, Scripture, God, Lesson, Chemistry, Search

Week 02

Week 02 Assignment — Memory Verse Application

Course: CHEM-101 · General Chemistry I with Lab Stewardship

Week focus: CHEM-101 — Lesson 2: Matter, Elements, and the Periodic Table

Learning objective (Bloom's taxonomy)

Students will **apply** course content from **CHEM-101 — Lesson 2: Matter, Elements, and the Periodic Table** with KJV integration and measurable evidence in the submission.

Task

Apply: Recite this week's memory verse from memory, then write 250 words explaining how it applies to daily discipleship.

Submit: Text via LMS assignment form. PDF upload optional for longer work.

Grading

Grading mode: Auto-grade eligible (written text).

Pass: 70%

Rubric (100 points)

Auto-grade hints

Keywords for automated pre-check: KJV, Christ, Scripture, God, Lesson, Matter, Elements

Week 03

Week 03 Assignment — Expository Outline

Course: CHEM-101 · General Chemistry I with Lab Stewardship

Week focus: CHEM-101 — Lesson 3: Atomic Structure and Electron Configuration

Learning objective (Bloom's taxonomy)

Students will **outline** course content from **CHEM-101 — Lesson 3: Atomic Structure and Electron Configuration** with KJV integration and measurable evidence in the submission.

Task

Outline: Produce a structured outline (400+ words) for the main passage in **CHEM-101 — Lesson 3: Atomic Structure and Electron Configuration**. Include pericope titles and one-sentence themes.

Submit: Text via LMS assignment form. PDF upload optional for longer work.

Grading

Grading mode: Auto-grade eligible (written text).

Pass: 70%

Rubric (100 points)

Auto-grade hints

Keywords for automated pre-check: KJV, Christ, Scripture, God, Lesson, Atomic, Structure

Week 04

Week 04 Assignment — Discussion Response

Course: CHEM-101 · General Chemistry I with Lab Stewardship

Week focus: CHEM-101 — Lesson 4: Chemical Bonding and Molecular Geometry

Learning objective (Bloom's taxonomy)

Students will **explain** course content from **CHEM-101 — Lesson 4: Chemical Bonding and Molecular Geometry** with KJV integration and measurable evidence in the submission.

Task

Explain: Answer two discussion prompts from the Week 4 reading in 200 words each. Cite KJV only.

Submit: Text via LMS assignment form. PDF upload optional for longer work.

Grading

Grading mode: Auto-grade eligible (written text).

Pass: 70%

Rubric (100 points)

Auto-grade hints

Keywords for automated pre-check: KJV, Christ, Scripture, God, Lesson, Chemical, Bonding

Week 05

Week 05 Assignment — Practical Ministry Step

Course: CHEM-101 · General Chemistry I with Lab Stewardship

Week focus: CHEM-101 — Lesson 5: Nomenclature and Formula Writing

Learning objective (Bloom's taxonomy)

Students will **demonstrate** course content from **CHEM-101 — Lesson 5: Nomenclature and Formula Writing** with KJV integration and measurable evidence in the submission.

Task

Demonstrate: Complete one practical ministry action tied to **CHEM-101 — Lesson 5: Nomenclature and Formula Writing** (visit, prayer walk, family worship, or service). Submit a 200-word report plus optional photo upload.

Submit: Text via LMS assignment form. PDF upload optional for longer work.

Grading

Grading mode: Manual review (practical/upload).

Pass: 70%

Rubric (100 points)

Week 06

Week 06 Assignment — Witness Outline

Course: CHEM-101 · General Chemistry I with Lab Stewardship

Week focus: CHEM-101 — Lesson 6: Mole Concept and Stoichiometry

Learning objective (Bloom's taxonomy)

Students will **construct** course content from **CHEM-101 — Lesson 6: Mole Concept and Stoichiometry** with KJV integration and measurable evidence in the submission.

Task

Construct: Draft a 3-minute spoken witness outline using this week's theme. Include gospel bridge, one objection with biblical answer, and call to faith.

Submit: Text via LMS assignment form. PDF upload optional for longer work.

Grading

Grading mode: Auto-grade eligible (written text).

Pass: 70%

Rubric (100 points)

Auto-grade hints

Keywords for automated pre-check: KJV, Christ, Scripture, God, Lesson, Concept, Stoichiometry

Week 07

Week 07 Assignment — Cross-Reference Study

Course: CHEM-101 · General Chemistry I with Lab Stewardship

Week focus: CHEM-101 — Lesson 7: Reactions in Aqueous Solutions

Learning objective (Bloom's taxonomy)

Students will **compare** course content from **CHEM-101 — Lesson 7: Reactions in Aqueous Solutions** with KJV integration and measurable evidence in the submission.

Task

Compare: Find three cross-references that illuminate **CHEM-101 — Lesson 7: Reactions in Aqueous Solutions**. Write 400 words comparing themes (OT + NT).

Submit: Text via LMS assignment form. PDF upload optional for longer work.

Grading

Grading mode: Auto-grade eligible (written text).

Pass: 70%

Rubric (100 points)

Auto-grade hints

Keywords for automated pre-check: KJV, Christ, Scripture, God, Lesson, Reactions, Aqueous

Week 08

Week 08 Assignment — Historical Context Brief

Course: CHEM-101 · General Chemistry I with Lab Stewardship

Week focus: CHEM-101 — Lesson 8: Thermochemistry and Enthalpy

Learning objective (Bloom's taxonomy)

Students will **describe** course content from **CHEM-101 — Lesson 8: Thermochemistry and Enthalpy** with KJV integration and measurable evidence in the submission.

Task

Describe: Write 350 words on historical/literary context for **CHEM-101 — Lesson 8: Thermochemistry and Enthalpy**. Minimum four KJV citations.

Submit: Text via LMS assignment form. PDF upload optional for longer work.

Grading

Grading mode: Auto-grade eligible (written text).

Pass: 70%

Rubric (100 points)

Auto-grade hints

Keywords for automated pre-check: KJV, Christ, Scripture, God, Lesson, Thermochemistry, Enthalpy

Week 09

Week 09 Assignment — Christological Connection Essay

Course: CHEM-101 · General Chemistry I with Lab Stewardship

Week focus: CHEM-101 — Lesson 9: Gases and Gas Laws

Learning objective (Bloom's taxonomy)

Students will **evaluate** course content from **CHEM-101 — Lesson 9: Gases and Gas Laws** with KJV integration and measurable evidence in the submission.

Task

Evaluate: Explain how **CHEM-101 — Lesson 9: Gases and Gas Laws** points to Christ in 400–600 words. Use literal-grammatical-historical method.

Submit: Text via LMS assignment form. PDF upload optional for longer work.

Grading

Grading mode: Auto-grade eligible (written text).

Pass: 70%

Rubric (100 points)

Auto-grade hints

Keywords for automated pre-check: KJV, Christ, Scripture, God, Lesson, Gases

Week 10

Week 10 Assignment — Teaching Prep

Course: CHEM-101 · General Chemistry I with Lab Stewardship

Week focus: CHEM-101 — Lesson 10: Acids, Bases, and pH Stewardship

Learning objective (Bloom's taxonomy)

Students will **design** course content from **CHEM-101 — Lesson 10: Acids, Bases, and pH Stewardship** with KJV integration and measurable evidence in the submission.

Task

Design: Prepare a 5-minute teaching outline for **CHEM-101 — Lesson 10: Acids, Bases, and pH Stewardship** suitable for a small group or homeschool lesson.

Submit: Text via LMS assignment form. PDF upload optional for longer work.

Grading

Grading mode: Auto-grade eligible (written text).

Pass: 70%

Rubric (100 points)

Auto-grade hints

Keywords for automated pre-check: KJV, Christ, Scripture, God, Lesson, Acids, Bases

Week 11

Week 11 Assignment — Integration & Review

Course: CHEM-101 · General Chemistry I with Lab Stewardship

Week focus: CHEM-101 — Lesson 12: Capstone: Chemistry Lab Report with Creation Integration

Learning objective (Bloom's taxonomy)

Students will **synthesize** course content from **CHEM-101 — Lesson 12: Capstone: Chemistry Lab Report with Creation Integration** with KJV integration and measurable evidence in the submission.

Task

Synthesize: Synthesize the top five themes from General Chemistry I with Lab Stewardship. 600 words, minimum six KJV citations, one paragraph on personal growth.

Submit: Text via LMS assignment form. PDF upload optional for longer work.

Grading

Grading mode: Auto-grade eligible (written text).

Pass: 70%

Rubric (100 points)

Auto-grade hints

Keywords for automated pre-check: KJV, Christ, Scripture, God, Lesson, Capstone, Chemistry

Week 12

Learning objective (Bloom's taxonomy)

Students will **create** an original ministry artifact synthesizing General Chemistry I with Lab Stewardship with KJV fidelity and scholarship-gallery quality.

Creative Ministry Project —” CHEM-101

Course: General Chemistry I with Lab Stewardship

Integrate professional skills from this course with gospel witness. Submit a capstone artifact (report, demo, script, or plan) with KJV integration and rubric self-assessment. Minimum 70% to pass; 75% for excellence distinction.

Grading

Grading mode: Manual review (creative upload).

Pass: 70%

Rubric (100 points)

Creative Ministry Project

Creative Ministry Project —” CHEM-101

Course: General Chemistry I with Lab Stewardship

Integrate professional skills from this course with gospel witness. Submit a capstone artifact (report, demo, script, or plan) with KJV integration and rubric self-assessment. Minimum 70% to pass; 75% for excellence distinction.