# AI Literacy Training Program for SGH Group

## **Program Overview**

This comprehensive AI literacy training program is designed to meet the requirements of Article 4 of the EU AI Act while ensuring all SGH employees develop appropriate AI competency based on their roles, technical knowledge, and involvement with AI systems. The program consists of core modules for all staff and specialized modules for specific roles, with flexible delivery methods to accommodate various learning preferences and operational constraints.

## **SECTION 1: FOUNDATION MODULES (ALL EMPLOYEES)**

### **Module 1: Introduction to Artificial Intelligence**

#### **Learning Objectives:**

* Define artificial intelligence and related concepts
* Recognize different types of AI systems and capabilities
* Understand basic AI terminology and concepts
* Identify AI applications relevant to SGH's business

#### **Curriculum Content:**

1. AI Fundamentals
   * Definition and history of artificial intelligence
   * Types of AI: narrow vs. general AI
   * Machine learning, deep learning, and neural networks
   * Natural language processing and computer vision
   * Rule-based systems vs. learning systems
2. How AI Systems Work
   * Input-processing-output model of AI systems
   * Training data and its importance
   * Basic concepts of algorithms and models
   * The role of human feedback in AI development
   * Limitations of current AI technologies
3. AI in Business Operations
   * Common business applications of AI
   * Benefits and challenges of implementing AI
   * How AI supports human work vs. replacing it
   * AI adoption trends in the technical services industry
   * Case studies of successful AI implementation
4. Assessment Activity:
   * Interactive quiz on AI fundamentals
   * Guided exercise: Identifying AI vs. non-AI technologies
   * Discussion: Recognizing AI applications in your daily work

#### **Training Materials:**

* Illustrated slide presentation with examples
* Short video demonstrations of AI systems
* Infographics explaining key concepts
* Glossary of AI terminology

### **Module 2: AI Systems at SGH**

#### **Learning Objectives:**

* Identify the AI systems used within SGH
* Understand appropriate use cases for each AI system
* Recognize the limitations of company AI tools
* Follow best practices for effective and responsible AI use

#### **Curriculum Content:**

1. General Office AI Tools
   * Microsoft Copilot
     + Capabilities and integration with Office 365
     + Appropriate use cases: document creation, data analysis, meeting summaries
     + Limitations and verification requirements
     + Best practices for prompt engineering
     + Data security considerations
   * ChatGPT and Similar LLMs
     + Capabilities and access methods
     + Appropriate business use cases
     + Content verification procedures
     + Confidential information protocols
     + Citation and attribution requirements
   * Adobe Creative Cloud AI Features
     + Overview of Generative Fill, Content Aware, and other AI tools
     + Appropriate use cases for marketing and documentation
     + Copyright and licensing considerations
     + Quality control for AI-generated content
   * Odoo AI Capabilities
     + AI features within SGH's ERP system
     + Automated workflows and reporting
     + Data quality and governance requirements
     + Human verification protocols
2. Business-Specific AI Tools
   * Technical service optimization systems
   * Customer service AI applications
   * Business intelligence and data analytics tools
   * Project management AI features
3. AI Usage Policies at SGH
   * Permissible and restricted AI use cases
   * Data handling requirements
   * Client confidentiality considerations
   * Documentation and transparency obligations
   * Escalation procedures for AI-related concerns
4. Assessment Activity:
   * Scenario-based exercises using SGH's AI tools
   * Decision-making exercise: When to use/not use AI
   * Documentation practice: Recording AI usage appropriately

#### **Training Materials:**

* Hands-on tutorials for each major AI system
* Decision flowcharts for appropriate AI usage
* Quick reference guides for each tool
* Company policy documentation templates

### **Module 3: AI Ethics and Responsible Use**

#### **Learning Objectives:**

* Recognize ethical considerations in AI development and use
* Identify potential biases and limitations in AI systems
* Apply responsible AI practices in daily work
* Understand data privacy implications of AI systems

#### **Curriculum Content:**

1. Ethical Frameworks for AI
   * Key ethical principles: fairness, transparency, accountability, privacy
   * Identifying and addressing algorithmic bias
   * Balancing innovation with responsibility
   * Global perspectives on AI ethics
2. Recognizing AI Limitations
   * Understanding AI hallucinations and fabrications
   * Statistical nature of AI predictions
   * Domain-specific limitations of AI tools
   * The importance of human verification
   * Scenarios where AI should not be relied upon
3. Data Privacy and AI
   * GDPR implications for AI usage
   * Personal data processing in AI systems
   * Data minimization principles
   * Transparency requirements
   * Rights of data subjects
4. Responsible AI Practices
   * Verifying AI-generated information
   * Maintaining appropriate human oversight
   * Transparency with clients and colleagues
   * Documentation best practices
   * Continuous evaluation of AI outputs
5. Assessment Activity:
   * Case study analysis of ethical dilemmas
   * Identifying bias in sample AI outputs
   * Role-playing exercises on handling AI limitations
   * Privacy impact assessment practice

#### **Training Materials:**

* Ethics case studies relevant to technical services
* Bias recognition checklists
* Decision-making frameworks for ethical issues
* Documentation templates for AI usage

### **Module 4: EU AI Act Essentials**

#### **Learning Objectives:**

* Understand the purpose and structure of the EU AI Act
* Identify different risk categories and corresponding requirements
* Recognize individual responsibilities under the regulation
* Follow company procedures for compliance

#### **Curriculum Content:**

1. EU AI Act Overview
   * Purpose and scope of the regulation
   * Risk-based approach to AI governance
   * Implementation timeline and key deadlines
   * Relationship to other regulations (GDPR, sector-specific)
2. Risk Categories and Implications
   * Prohibited AI practices
   * High-risk AI systems
   * Limited risk AI systems
   * Minimal risk AI systems
   * How SGH's AI tools are classified
3. Compliance Requirements
   * Documentation obligations
   * Risk management systems
   * Data governance requirements
   * Human oversight mechanisms
   * Technical robustness and accuracy
4. Individual Responsibilities
   * Employee obligations under the AI Act
   * Reporting potential compliance issues
   * Documentation requirements for AI usage
   * Maintaining appropriate oversight
   * Continuous learning requirements
5. Assessment Activity:
   * Scenario-based compliance exercises
   * Risk categorization practice
   * Documentation requirements identification
   * Compliance procedures walkthrough

#### **Training Materials:**

* Simplified EU AI Act guidance
* Risk assessment templates
* Compliance checklists
* Reporting procedure documentation
* FAQ document on regulatory requirements

## **SECTION 2: ROLE-SPECIFIC ADVANCED MODULES**

### **Module 5: AI for Technical Service Teams**

#### **Learning Objectives:**

* Apply AI tools effectively in technical service delivery
* Maintain appropriate human oversight of AI-assisted processes
* Implement quality control for AI-generated recommendations
* Communicate transparently with clients about AI usage

#### **Curriculum Content:**

1. AI Applications in Technical Services
   * Predictive maintenance algorithms
   * Resource allocation optimization
   * Automated diagnostic tools
   * Service scheduling and routing AI
   * Technical documentation assistance
2. Human-AI Collaboration Best Practices
   * Verification protocols for AI recommendations
   * Appropriate delegation of tasks to AI
   * Effective oversight techniques
   * Exception handling procedures
   * Continuous improvement feedback loops
3. Quality Control for AI-Assisted Service
   * Validation methodologies for AI outputs
   * Error detection and correction
   * Performance monitoring frameworks
   * Client satisfaction measurement
   * Systematic review procedures
4. Client Communication about AI
   * Transparency requirements and best practices
   * Explaining AI usage to clients
   * Managing expectations about AI capabilities
   * Handling questions and concerns
   * Documentation and disclosure
5. Assessment Activity:
   * Technical service scenarios with AI components
   * Quality control procedure practice
   * Client communication role-playing
   * Documentation exercises

#### **Training Materials:**

* Technical service AI implementation guides
* Quality control checklists
* Client communication templates
* Case studies from technical service deployments
* Performance monitoring frameworks

### **Module 6: AI for Management and Leadership**

#### **Learning Objectives:**

* Develop strategic understanding of AI implications for business
* Implement appropriate governance structures for AI systems
* Manage compliance risks and obligations
* Allocate resources effectively for AI implementation

#### **Curriculum Content:**

1. Strategic AI Integration
   * Business value assessment for AI implementation
   * Build vs. buy decision frameworks
   * ROI measurement for AI investments
   * Competitive landscape analysis
   * Future-proofing AI strategy
2. AI Governance Frameworks
   * Governance structures and roles
   * Policy development and implementation
   * Risk management approaches
   * Vendor management considerations
   * Performance measurement
3. Compliance Management
   * EU AI Act obligations for leadership
   * Cross-regulatory considerations (GDPR, sector-specific)
   * Documentation requirements
   * Audit preparation strategies
   * Incident response planning
4. Change Management for AI
   * Employee concerns and resistance
   * Communication strategies
   * Training program oversight
   * Cultural integration approaches
   * Monitoring adoption and effectiveness
5. Assessment Activity:
   * AI governance structure design exercise
   * Compliance risk assessment
   * Resource allocation decision-making
   * Change management planning

#### **Training Materials:**

* AI governance frameworks and templates
* Risk assessment methodologies
* Resource planning tools
* Change management playbooks
* Executive briefing materials

### **Module 7: AI for HR and Administrative Functions**

#### **Learning Objectives:**

* Apply AI tools ethically in HR processes
* Implement appropriate oversight for administrative AI
* Ensure compliance with relevant regulations
* Document AI usage in human resource management

#### **Curriculum Content:**

1. AI in Recruitment and Talent Management
   * Ethical considerations for AI-assisted hiring
   * Bias detection and mitigation
   * Compliance requirements for automated decisions
   * Appropriate human oversight models
   * Candidate experience and transparency
2. AI for Administrative Optimization
   * Document processing automation
   * Meeting scheduling and management
   * Email triage and response assistance
   * Knowledge management applications
   * Administrative workflow optimization
3. Legal and Compliance Considerations
   * Employment law implications of AI
   * Documentation requirements
   * Record retention policies
   * Transparency obligations
   * Employee data privacy protections
4. Training Program Management
   * AI literacy assessment approaches
   * Training needs analysis
   * Program effectiveness measurement
   * Documentation for compliance purposes
   * Continuous learning strategies
5. Assessment Activity:
   * HR case studies with AI components
   * Documentation practice for AI-assisted decisions
   * Bias identification and mitigation exercises
   * Training program design components

#### **Training Materials:**

* HR-specific AI usage guidelines
* Documentation templates
* Bias detection frameworks
* Training program management tools
* Compliance checklists for HR AI

### **Module 8: AI for IT and Development Teams**

#### **Learning Objectives:**

* Implement technical compliance measures for AI systems
* Develop appropriate documentation and logging mechanisms
* Design and maintain risk management frameworks
* Support testing and validation of AI systems

#### **Curriculum Content:**

1. Technical Implementation of Compliance Requirements
   * Documentation standards and practices
   * Logging implementation for AI systems
   * Risk management system architecture
   * Data governance technical controls
   * Human oversight mechanism implementation
2. AI System Security
   * Vulnerability assessment for AI systems
   * Adversarial attack prevention
   * Data protection measures
   * Access control frameworks
   * Monitoring and alerting systems
3. Testing and Validation
   * Test protocol development
   * Validation methodology implementation
   * Performance monitoring systems
   * Bias detection technical approaches
   * Continuous evaluation frameworks
4. Technical Documentation
   * System architecture documentation
   * Data flow diagrams and processing records
   * Risk assessment documentation
   * Test results and validation records
   * Version control and change management
5. Assessment Activity:
   * Technical implementation planning
   * Documentation practice for AI systems
   * Testing protocol development
   * Security assessment exercise

#### **Training Materials:**

* Technical implementation guides
* Documentation templates and examples
* Testing methodology frameworks
* Security assessment checklists
* Technical reference architectures

## **SECTION 3: TRAINING DELIVERY METHODS**

### **1. E-Learning Platform**

Components:

* Interactive online modules with video, text, and graphics
* Knowledge check quizzes after each section
* Downloadable resources and reference materials
* Progress tracking and completion certificates
* Discussion forums for questions and peer learning

Implementation:

* Mobile-compatible design for flexibility
* Modular structure allowing customized learning paths
* Automated reminders for uncompleted sections
* Integration with HR systems for tracking
* Regular content updates as regulations evolve

### **2. In-Person Workshops**

Components:

* Hands-on exercises with SGH's actual AI tools
* Group discussions and problem-solving activities
* Role-playing scenarios for practical application
* Expert-led Q&A sessions
* Peer learning opportunities

Implementation:

* Departmental sessions customized to specific needs
* Hybrid options for remote employees
* Recorded sessions for future reference
* Structured follow-up activities
* Regular refresher workshops

### **3. Microlearning Resources**

Components:

* 5-10 minute video explainers on specific topics
* Quick reference guides and job aids
* AI tool tip sheets and best practices
* Weekly AI literacy email digests
* Mobile-friendly quick lessons

Implementation:

* Just-in-time delivery based on role and projects
* Searchable knowledge base of resources
* QR codes linking to relevant microlearning
* Integration with corporate communication channels
* Regular updates with new content

### **4. Peer Learning Program**

Components:

* AI champions network across departments
* Structured mentoring on AI literacy topics
* Department-specific learning circles
* Case study sharing sessions
* Collaborative problem-solving groups

Implementation:

* AI champion selection and training
* Regular community of practice meetings
* Recognition system for knowledge sharing
* Documentation of lessons learned
* Measurement of peer program effectiveness

## **SECTION 4: ASSESSMENT AND CERTIFICATION**

### **1. Knowledge Assessment**

Components:

* Pre and post-training knowledge assessments
* Scenario-based application questions
* Role-specific competency evaluations
* Open-ended reflection assignments
* Practical demonstration of skills

Implementation:

* Automated scoring for objective elements
* Expert review of subjective components
* Remediation paths for knowledge gaps
* Certification based on assessment results
* Regular reassessment as systems evolve

### **2. Documentation of Competency**

Components:

* Digital badges for completed modules
* Comprehensive AI literacy certificates
* Role-specific competency documentation
* Training records management system
* Regulatory compliance evidence

Implementation:

* Secure verification of credentials
* Integration with professional development systems
* Documentation that meets regulatory requirements
* Regular auditing of completion records
* Reporting capabilities for compliance purposes

### **3. Continuous Learning Framework**

Components:

* Annual refresher requirements
* New system training protocols
* Regulatory update briefings
* Advanced topic workshops
* Knowledge sharing sessions

Implementation:

* Calendar of continuous learning opportunities
* Notification system for required updates
* Documentation of ongoing learning
* Recognition for continuous improvement
* Integration with performance management

## **SECTION 5: IMPLEMENTATION MATERIALS**

### **1. Program Rollout Plan**

Phase 1: Preparation (4 Weeks)

* Finalize curriculum and materials
* Train facilitators and AI champions
* Configure e-learning platform
* Develop communication strategy
* Establish baseline knowledge assessment

Phase 2: Core Module Deployment (8 Weeks)

* Launch communication campaign
* Deploy Foundation Modules 1-4 for all staff
* Conduct initial assessment
* Gather feedback and make adjustments
* Document completion and results

Phase 3: Role-Specific Training (12 Weeks)

* Deploy advanced modules based on roles
* Conduct department-specific workshops
* Implement peer learning program
* Assess advanced competencies
* Document specialized training completion

Phase 4: Continuous Improvement (Ongoing)

* Gather program effectiveness metrics
* Refine curriculum based on feedback
* Update content for regulatory changes
* Expand resource library
* Implement regular refresher schedule

### **2. Communication Templates**

Program Announcement Email

Subject: Important: AI Literacy Training Program Launch - Action Required

Dear [Employee Name],

As part of our commitment to responsible AI use and compliance with the EU AI Act, we are launching a comprehensive AI Literacy Training Program. This program will provide you with essential knowledge and skills to effectively and responsibly work with AI systems at SGH.

Your Required Actions:

1. Complete the pre-training assessment by [Date]

2. Participate in Foundation Modules 1-4 by [Date]

3. Schedule your role-specific advanced training by [Date]

The training program includes:

• Interactive e-learning modules

• Department-specific workshops

• Practical application exercises

• Resources for ongoing reference

Your completion of this training is not only a regulatory requirement but an important investment in your professional development as AI continues to transform our industry.

To get started, please visit [Link to Training Platform] and log in with your company credentials.

If you have any questions, please contact [Training Contact].

Best regards,

[Leadership Name]

Training Reminder Template

Subject: Reminder: AI Literacy Training Deadline Approaching

Dear [Employee Name],

This is a friendly reminder that the deadline for completing your required AI Literacy Training modules is approaching:

• Current completion status: [X of Y modules completed]

• Remaining modules: [List of incomplete modules]

• Deadline: [Date]

These training modules are essential for ensuring our compliance with the EU AI Act and for developing the skills needed to work effectively with AI systems at SGH.

To complete your training, please log in to [Training Platform Link].

If you need assistance or have questions, please contact [Training Contact].

Thank you for your prompt attention to this important requirement.

Best regards,

[Training Manager Name]

Role-Specific Training Announcement

Subject: Your Specialized AI Training Path - Action Required

Dear [Employee Name],

Based on your role at SGH, we have identified the following advanced AI literacy modules that will provide you with specialized knowledge relevant to your responsibilities:

[List of role-specific modules]

These modules build upon the foundation training and provide specific guidance on:

• AI applications in your functional area

• Role-specific compliance requirements

• Specialized tools and techniques

• Documentation and oversight responsibilities

Please complete these modules by [Date]. You can access them at [Link].

Additionally, a department workshop is scheduled for [Date/Time/Location]. Your participation is required.

Thank you for your commitment to developing your AI literacy skills.

Best regards,

[Department Manager]

### **3. Assessment Templates**

Pre-Training Assessment Sample Questions

1. Which of the following best describes artificial intelligence? a) Any computer program that can make decisions b) Systems designed to mimic human intelligence in performing tasks c) Robots that look and act like humans d) Any automated system used in business
2. Which AI system does SGH currently use for document creation and analysis? a) Watson Analytics b) Microsoft Copilot c) Google Bard d) Adobe Sensei
3. True or False: Under the EU AI Act, all AI systems used at SGH require the same level of compliance measures.
4. When using AI tools for customer communications, what should you always do? a) Let the AI generate content without review b) Tell customers that AI was used to create all communications c) Verify the accuracy of AI-generated content before sending d) Use the most advanced AI available for all communications
5. Scenario: You notice that an AI system used for scheduling technical service appointments seems to prioritize certain client types over others, without clear business justification. What should you do? (Open-ended response)

Practical Skills Assessment - ChatGPT Usage

Task: Using ChatGPT, draft a response to a client inquiry about service scheduling options. Then apply the verification checklist and document your process.

Evaluation Criteria:

* Appropriate prompt construction
* Critical evaluation of the generated response
* Identification of any potential inaccuracies
* Proper documentation of AI usage
* Implementation of necessary modifications

Role-Specific Assessment - Technical Services

Scenario: A new AI-powered predictive maintenance system has been implemented. Describe:

1. What types of human oversight should be maintained
2. How you would verify the system's recommendations
3. What documentation you should maintain
4. How you would explain the system to clients
5. What you would do if you noticed the system making unusual recommendations

### **4. Documentation Templates**

AI Usage Log Template

AI SYSTEM USAGE RECORD

User: [Employee Name]

Department: [Department]

Date and Time: [Date/Time]

AI System Used: [System Name]

Version/Model: [Version]

Purpose of Use:

[Brief description of business purpose]

Input Provided:

[Summary of prompts or data provided to the system]

Output Generated:

[Summary of AI-generated output]

Verification Steps Taken:

[ ] Reviewed output for accuracy

[ ] Cross-checked with independent sources

[ ] Consulted with colleague/supervisor

[ ] Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Modifications Made:

[Description of any changes made to the AI output]

Final Use of Output:

[How the output was ultimately used]

Notes/Concerns:

[Any unusual behavior, limitations, or other observations]

Retention Requirements:

[ ] Standard (3 months)

[ ] Extended (1 year)

[ ] Long-term (7 years)

[ ] Permanent

Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

AI Literacy Training Record

EMPLOYEE AI LITERACY CERTIFICATION

Employee Name: [Name]

Employee ID: [ID]

Department: [Department]

Role: [Job Title]

FOUNDATION MODULES

[ ] Module 1: Introduction to Artificial Intelligence - Completed [Date]

[ ] Module 2: AI Systems at SGH - Completed [Date]

[ ] Module 3: AI Ethics and Responsible Use - Completed [Date]

[ ] Module 4: EU AI Act Essentials - Completed [Date]

ROLE-SPECIFIC ADVANCED MODULES

[ ] Module [X]: [Title] - Completed [Date]

[ ] Module [Y]: [Title] - Completed [Date]

[ ] Module [Z]: [Title] - Completed [Date]

PRACTICAL ASSESSMENTS

[ ] Foundation Knowledge Assessment - Score: [Score] - [Date]

[ ] Role-Specific Competency Assessment - Score: [Score] - [Date]

[ ] Practical Application Assessment - Rating: [Rating] - [Date]

CONTINUOUS LEARNING

[ ] Annual Refresher - Completed [Date]

[ ] [Specialized Training] - Completed [Date]

CERTIFICATION STATUS

[ ] Fully Certified

[ ] Provisionally Certified - Requires: [Requirements]

[ ] Certification Expired - Renewal Due: [Date]

Certified by: [Training Administrator]

Date: [Certification Date]

Valid until: [Expiration Date]

AI System Risk Assessment Template

AI SYSTEM RISK ASSESSMENT

System Name: [System Name]

Vendor/Provider: [Vendor]

Version/Model: [Version]

Date of Assessment: [Date]

SYSTEM DESCRIPTION

Primary Function: [Description]

Input Data Types: [List data types]

Output Formats: [List output types]

Integration Points: [Systems integrated with]

EU AI ACT CLASSIFICATION

[ ] Prohibited Practice

[ ] High-Risk System

[ ] Limited Risk System

[ ] Minimal Risk System

Justification for Classification:

[Detailed explanation with reference to specific AI Act provisions]

RISK EVALUATION

Potential Risks Identified:

1. [Risk description] - Likelihood: [H/M/L] - Impact: [H/M/L]

2. [Risk description] - Likelihood: [H/M/L] - Impact: [H/M/L]

3. [Risk description] - Likelihood: [H/M/L] - Impact: [H/M/L]

Mitigation Measures:

1. [Measure description] - Responsible: [Role] - Status: [Implemented/Planned]

2. [Measure description] - Responsible: [Role] - Status: [Implemented/Planned]

3. [Measure description] - Responsible: [Role] - Status: [Implemented/Planned]

COMPLIANCE REQUIREMENTS

Documentation Required:

[ ] Technical documentation

[ ] Risk management system

[ ] Data governance documentation

[ ] Human oversight mechanisms

[ ] Other: [Specify]

Testing and Validation:

[ ] Accuracy testing completed

[ ] Bias assessment completed

[ ] Security assessment completed

[ ] Human oversight validation completed

APPROVAL

Assessment Completed By: [Name/Role]

Reviewed By: [Name/Role]

Approved By: [Name/Role]

Next Review Date: [Date]

## **SECTION 6: TRAINING PROGRAM EVALUATION**

### **1. Effectiveness Metrics**

Knowledge Gain Measurement

* Pre/post assessment score improvements
* Knowledge retention testing (30/60/90 days)
* Application of learning in workplace scenarios
* Self-reported confidence levels
* Manager-observed competency changes

Behavioral Change Indicators

* Proper documentation of AI usage
* Appropriate escalation of concerns
* Verification practices implementation
* Compliance with AI usage policies
* Collaboration with colleagues on AI topics

Business Impact Assessment

* Reduction in AI-related incidents
* Improved quality of AI-assisted outputs
* Efficiency gains through appropriate AI use
* Compliance audit readiness
* Client satisfaction with AI-assisted services

### **2. Continuous Improvement Mechanism**

Feedback Collection

* Post-module user surveys
* Focus group discussions
* Facilitator observations
* Manager input on observed changes
* Periodic program review sessions

Curriculum Refinement Process

* Quarterly content review meetings
* Regulatory update incorporation
* Real-world scenario additions
* Feedback-based module adjustments
* New AI system integration

Documentation Updates

* Version control for all materials
* Change log maintenance
* Distribution of updated resources
* Notification of significant changes
* Archive of previous versions

## **CONCLUSION: IMPLEMENTATION GUIDANCE**

### **Critical Success Factors**

1. Leadership Endorsement: Visible support from senior management
2. Resource Allocation: Sufficient time and tools for participation
3. Accountability: Clear responsibility for program completion
4. Relevance: Direct application to daily work
5. Continuous Reinforcement: Ongoing learning opportunities

### **Implementation Timeline**

1. Month 1: Program preparation and pilot testing
2. Month 2-3: Foundation module rollout to all employees
3. Month 4-6: Role-specific advanced module implementation
4. Ongoing: Continuous learning and refresher training

### **Key Performance Indicators**

1. Training completion rates by department
2. Knowledge assessment scores
3. Policy compliance rates
4. Documentation quality metrics
5. Incident reduction metrics

This comprehensive AI Literacy Training Program provides a structured approach to ensuring SGH Group meets the EU AI Act requirements while developing practical competencies for effective and responsible AI use in daily operations. The program's modular design allows for customization based on roles, technical knowledge, and specific AI systems while maintaining consistency in core knowledge requirements.

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2. Recognizing AI Limitations
   * Understanding AI hallucinations and fabrications
   * Statistical nature of AI predictions
   * Domain-specific limitations of AI tools
   * The importance of human verification
   * Scenarios where AI should not be relied upon
3. Data Privacy and AI
   * GDPR implications for AI usage
   * Personal data processing in AI systems
   * Data minimization principles
   * Transparency requirements
   * Rights of data subjects
4. Responsible AI Practices
   * Verifying AI-generated information
   * Maintaining appropriate human oversight
   * Transparency with clients and colleagues
   * Documentation best practices
   * Continuous evaluation of AI outputs
5. Assessment Activity:
   * Case study analysis of ethical dilemmas
   * Identifying bias in sample AI outputs
   * Role-playing exercises on handling AI limitations
   * Privacy impact assessment practice

#### **Training Materials:**

* Ethics case studies relevant to technical services
* Bias recognition checklists
* Decision-making frameworks for ethical issues
* Documentation templates for AI usage

### **Module 4: EU AI Act Essentials**

#### **Learning Objectives:**

* Understand the purpose and structure of the EU AI Act
* Identify different risk categories and corresponding requirements
* Recognize individual responsibilities under the regulation
* Follow company procedures for compliance

#### **Curriculum Content:**

1. EU AI Act Overview
   * Purpose and scope of the regulation
   * Risk-based approach to AI governance
   * Implementation timeline and key deadlines
   * Relationship to other regulations (GDPR, sector-specific)
2. Risk Categories and Implications
   * Prohibited AI practices
   * High-risk AI systems
   * Limited risk AI systems
   * Minimal risk AI systems
   * How SGH's AI tools are classified
3. Compliance Requirements
   * Documentation obligations
   * Risk management systems
   * Data governance requirements
   * Human oversight mechanisms
   * Technical robustness and accuracy
4. Individual Responsibilities
   * Employee obligations under the AI Act
   * Reporting potential compliance issues
   * Documentation requirements for AI usage
   * Maintaining appropriate oversight
   * Continuous learning requirements
5. Assessment Activity:
   * Scenario-based compliance exercises
   * Risk categorization practice
   * Documentation requirements identification
   * Compliance procedures walkthrough

#### **Training Materials:**

* Simplified EU AI Act guidance
* Risk assessment templates
* Compliance checklists
* Reporting procedure documentation
* FAQ document on regulatory requirements

## **SECTION 2: ROLE-SPECIFIC ADVANCED MODULES**

### **Module 5: AI for Technical Service Teams**

#### **Learning Objectives:**

* Apply AI tools effectively in technical service delivery
* Maintain appropriate human oversight of AI-assisted processes
* Implement quality control for AI-generated recommendations
* Communicate transparently with clients about AI usage

#### **Curriculum Content:**

1. AI Applications in Technical Services
   * Predictive maintenance algorithms
   * Resource allocation optimization
   * Automated diagnostic tools
   * Service scheduling and routing AI
   * Technical documentation assistance
2. Human-AI Collaboration Best Practices
   * Verification protocols for AI recommendations
   * Appropriate delegation of tasks to AI
   * Effective oversight techniques
   * Exception handling procedures
   * Continuous improvement feedback loops
3. Quality Control for AI-Assisted Service
   * Validation methodologies for AI outputs
   * Error detection and correction
   * Performance monitoring frameworks
   * Client satisfaction measurement
   * Systematic review procedures
4. Client Communication about AI
   * Transparency requirements and best practices
   * Explaining AI usage to clients
   * Managing expectations about AI capabilities
   * Handling questions and concerns
   * Documentation and disclosure
5. Assessment Activity:
   * Technical service scenarios with AI components
   * Quality control procedure practice
   * Client communication role-playing
   * Documentation exercises

#### **Training Materials:**

* Technical service AI implementation guides
* Quality control checklists
* Client communication templates
* Case studies from technical service deployments
* Performance monitoring frameworks

### **Module 6: AI for Management and Leadership**

#### **Learning Objectives:**

* Develop strategic understanding of AI implications for business
* Implement appropriate governance structures for AI systems
* Manage compliance risks and obligations
* Allocate resources effectively for AI implementation

#### **Curriculum Content:**

1. Strategic AI Integration
   * Business value assessment for AI implementation
   * Build vs. buy decision frameworks
   * ROI measurement for AI investments
   * Competitive landscape analysis
   * Future-proofing AI strategy
2. AI Governance Frameworks
   * Governance structures and roles
   * Policy development and implementation
   * Risk management approaches
   * Vendor management considerations
   * Performance measurement
3. Compliance Management
   * EU AI Act obligations for leadership
   * Cross-regulatory considerations (GDPR, sector-specific)
   * Documentation requirements
   * Audit preparation strategies
   * Incident response planning
4. Change Management for AI
   * Employee concerns and resistance
   * Communication strategies
   * Training program oversight
   * Cultural integration approaches
   * Monitoring adoption and effectiveness
5. Assessment Activity:
   * AI governance structure design exercise
   * Compliance risk assessment
   * Resource allocation decision-making
   * Change management planning

#### **Training Materials:**

* AI governance frameworks and templates
* Risk assessment methodologies
* Resource planning tools
* Change management playbooks
* Executive briefing materials

### **Module 7: AI for HR and Administrative Functions**

#### **Learning Objectives:**

* Apply AI tools ethically in HR processes
* Implement appropriate oversight for administrative AI
* Ensure compliance with relevant regulations
* Document AI usage in human resource management

#### **Curriculum Content:**

1. AI in Recruitment and Talent Management
   * Ethical considerations for AI-assisted hiring
   * Bias detection and mitigation
   * Compliance requirements for automated decisions
   * Appropriate human oversight models
   * Candidate experience and transparency
2. AI for Administrative Optimization
   * Document processing automation
   * Meeting scheduling and management
   * Email triage and response assistance
   * Knowledge management applications
   * Administrative workflow optimization
3. Legal and Compliance Considerations
   * Employment law implications of AI
   * Documentation requirements
   * Record retention policies
   * Transparency obligations
   * Employee data privacy protections
4. Training Program Management
   * AI literacy assessment approaches
   * Training needs analysis
   * Program effectiveness measurement
   * Documentation for compliance purposes
   * Continuous learning strategies
5. Assessment Activity:
   * HR case studies with AI components
   * Documentation practice for AI-assisted decisions
   * Bias identification and mitigation exercises
   * Training program design components

#### **Training Materials:**

* HR-specific AI usage guidelines
* Documentation templates
* Bias detection frameworks
* Training program management tools
* Compliance checklists for HR AI

### **Module 8: AI for IT and Development Teams**

#### **Learning Objectives:**

* Implement technical compliance measures for AI systems
* Develop appropriate documentation and logging mechanisms
* Design and maintain risk management frameworks
* Support testing and validation of AI systems

#### **Curriculum Content:**

1. Technical Implementation of Compliance Requirements
   * Documentation standards and practices
   * Logging implementation for AI systems
   * Risk management system architecture
   * Data governance technical controls
   * Human oversight mechanism implementation
2. AI System Security
   * Vulnerability assessment for AI systems
   * Adversarial attack prevention
   * Data protection measures
   * Access control frameworks
   * Monitoring and alerting systems
3. Testing and Validation
   * Test protocol development
   * Validation methodology implementation
   * Performance monitoring systems
   * Bias detection technical approaches
   * Continuous evaluation frameworks
4. Technical Documentation
   * System architecture documentation
   * Data flow diagrams and processing records
   * Risk assessment documentation
   * Test results and validation records
   * Version control and change management
5. Assessment Activity:
   * Technical implementation planning
   * Documentation practice for AI systems
   * Testing protocol development
   * Security assessment exercise

#### **Training Materials:**

* Technical implementation guides
* Documentation templates and examples
* Testing methodology frameworks
* Security assessment checklists
* Technical reference architectures

## **SECTION 3: TRAINING DELIVERY METHODS**

### **1. E-Learning Platform**

Components:

* Interactive online modules with video, text, and graphics
* Knowledge check quizzes after each section
* Downloadable resources and reference materials
* Progress tracking and completion certificates
* Discussion forums for questions and peer learning

Implementation:

* Mobile-compatible design for flexibility
* Modular structure allowing customized learning paths
* Automated reminders for uncompleted sections
* Integration with HR systems for tracking
* Regular content updates as regulations evolve

### **2. In-Person Workshops**

Components:

* Hands-on exercises with SGH's actual AI tools
* Group discussions and problem-solving activities
* Role-playing scenarios for practical application
* Expert-led Q&A sessions
* Peer learning opportunities

Implementation:

* Departmental sessions customized to specific needs
* Hybrid options for remote employees
* Recorded sessions for future reference
* Structured follow-up activities
* Regular refresher workshops

### **3. Microlearning Resources**

Components:

* 5-10 minute video explainers on specific topics
* Quick reference guides and job aids
* AI tool tip sheets and best practices
* Weekly AI literacy email digests
* Mobile-friendly quick lessons

Implementation:

* Just-in-time delivery based on role and projects
* Searchable knowledge base of resources
* QR codes linking to relevant microlearning
* Integration with corporate communication channels
* Regular updates with new content

### **4. Peer Learning Program**

Components:

* AI champions network across departments
* Structured mentoring on AI literacy topics
* Department-specific learning circles
* Case study sharing sessions
* Collaborative problem-solving groups

Implementation:

* AI champion selection and training
* Regular community of practice meetings
* Recognition system for knowledge sharing
* Documentation of lessons learned
* Measurement of peer program effectiveness

## **SECTION 4: ASSESSMENT AND CERTIFICATION**

### **1. Knowledge Assessment**

Components:

* Pre and post-training knowledge assessments
* Scenario-based application questions
* Role-specific competency evaluations
* Open-ended reflection assignments
* Practical demonstration of skills

Implementation:

* Automated scoring for objective elements
* Expert review of subjective components
* Remediation paths for knowledge gaps
* Certification based on assessment results
* Regular reassessment as systems evolve

### **2. Documentation of Competency**

Components:

* Digital badges for completed modules
* Comprehensive AI literacy certificates
* Role-specific competency documentation
* Training records management system
* Regulatory compliance evidence

Implementation:

* Secure verification of credentials
* Integration with professional development systems
* Documentation that meets regulatory requirements
* Regular auditing of completion records
* Reporting capabilities for compliance purposes

### **3. Continuous Learning Framework**

Components:

* Annual refresher requirements
* New system training protocols
* Regulatory update briefings
* Advanced topic workshops
* Knowledge sharing sessions

Implementation:

* Calendar of continuous learning opportunities
* Notification system for required updates
* Documentation of ongoing learning
* Recognition for continuous improvement
* Integration with performance management

## **SECTION 5: IMPLEMENTATION MATERIALS**

### **1. Program Rollout Plan**

Phase 1: Preparation (4 Weeks)

* Finalize curriculum and materials
* Train facilitators and AI champions
* Configure e-learning platform
* Develop communication strategy
* Establish baseline knowledge assessment

Phase 2: Core Module Deployment (8 Weeks)

* Launch communication campaign
* Deploy Foundation Modules 1-4 for all staff
* Conduct initial assessment
* Gather feedback and make adjustments
* Document completion and results

Phase 3: Role-Specific Training (12 Weeks)

* Deploy advanced modules based on roles
* Conduct department-specific workshops
* Implement peer learning program
* Assess advanced competencies
* Document specialized training completion

Phase 4: Continuous Improvement (Ongoing)

* Gather program effectiveness metrics
* Refine curriculum based on feedback
* Update content for regulatory changes
* Expand resource library
* Implement regular refresher schedule

### **2. Communication Templates**

Program Announcement Email

Subject: Important: AI Literacy Training Program Launch - Action Required

Dear [Employee Name],

As part of our commitment to responsible AI use and compliance with the EU AI Act, we are launching a comprehensive AI Literacy Training Program. This program will provide you with essential knowledge and skills to effectively and responsibly work with AI systems at SGH.

Your Required Actions:

1. Complete the pre-training assessment by [Date]

2. Participate in Foundation Modules 1-4 by [Date]

3. Schedule your role-specific advanced training by [Date]

The training program includes:

• Interactive e-learning modules

• Department-specific workshops

• Practical application exercises

• Resources for ongoing reference

Your completion of this training is not only a regulatory requirement but an important investment in your professional development as AI continues to transform our industry.

To get started, please visit [Link to Training Platform] and log in with your company credentials.

If you have any questions, please contact [Training Contact].

Best regards,

[Leadership Name]

Training Reminder Template

Subject: Reminder: AI Literacy Training Deadline Approaching

Dear [Employee Name],

This is a friendly reminder that the deadline for completing your required AI Literacy Training modules is approaching:

• Current completion status: [X of Y modules completed]

• Remaining modules: [List of incomplete modules]

• Deadline: [Date]

These training modules are essential for ensuring our compliance with the EU AI Act and for developing the skills needed to work effectively with AI systems at SGH.

To complete your training, please log in to [Training Platform Link].

If you need assistance or have questions, please contact [Training Contact].

Thank you for your prompt attention to this important requirement.

Best regards,

[Training Manager Name]

Role-Specific Training Announcement

Subject: Your Specialized AI Training Path - Action Required

Dear [Employee Name],

Based on your role at SGH, we have identified the following advanced AI literacy modules that will provide you with specialized knowledge relevant to your responsibilities:

[List of role-specific modules]

These modules build upon the foundation training and provide specific guidance on:

• AI applications in your functional area

• Role-specific compliance requirements

• Specialized tools and techniques

• Documentation and oversight responsibilities

Please complete these modules by [Date]. You can access them at [Link].

Additionally, a department workshop is scheduled for [Date/Time/Location]. Your participation is required.

Thank you for your commitment to developing your AI literacy skills.

Best regards,

[Department Manager]

### **3. Assessment Templates**

Pre-Training Assessment Sample Questions

1. Which of the following best describes artificial intelligence? a) Any computer program that can make decisions b) Systems designed to mimic human intelligence in performing tasks c) Robots that look and act like humans d) Any automated system used in business
2. Which AI system does SGH currently use for document creation and analysis? a) Watson Analytics b) Microsoft Copilot c) Google Bard d) Adobe Sensei
3. True or False: Under the EU AI Act, all AI systems used at SGH require the same level of compliance measures.
4. When using AI tools for customer communications, what should you always do? a) Let the AI generate content without review b) Tell customers that AI was used to create all communications c) Verify the accuracy of AI-generated content before sending d) Use the most advanced AI available for all communications
5. Scenario: You notice that an AI system used for scheduling technical service appointments seems to prioritize certain client types over others, without clear business justification. What should you do? (Open-ended response)

Practical Skills Assessment - ChatGPT Usage

Task: Using ChatGPT, draft a response to a client inquiry about service scheduling options. Then apply the verification checklist and document your process.

Evaluation Criteria:

* Appropriate prompt construction
* Critical evaluation of the generated response
* Identification of any potential inaccuracies
* Proper documentation of AI usage
* Implementation of necessary modifications

Role-Specific Assessment - Technical Services

Scenario: A new AI-powered predictive maintenance system has been implemented. Describe:

1. What types of human oversight should be maintained
2. How you would verify the system's recommendations
3. What documentation you should maintain
4. How you would explain the system to clients
5. What you would do if you noticed the system making unusual recommendations

### **4. Documentation Templates**

AI Usage Log Template

AI SYSTEM USAGE RECORD

User: [Employee Name]

Department: [Department]

Date and Time: [Date/Time]

AI System Used: [System Name]

Version/Model: [Version]

Purpose of Use:

[Brief description of business purpose]

Input Provided:

[Summary of prompts or data provided to the system]

Output Generated:

[Summary of AI-generated output]

Verification Steps Taken:

[ ] Reviewed output for accuracy

[ ] Cross-checked with independent sources

[ ] Consulted with colleague/supervisor

[ ] Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Modifications Made:

[Description of any changes made to the AI output]

Final Use of Output:

[How the output was ultimately used]

Notes/Concerns:

[Any unusual behavior, limitations, or other observations]

Retention Requirements:

[ ] Standard (3 months)

[ ] Extended (1 year)

[ ] Long-term (7 years)

[ ] Permanent

Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

AI Literacy Training Record

EMPLOYEE AI LITERACY CERTIFICATION

Employee Name: [Name]

Employee ID: [ID]

Department: [Department]

Role: [Job Title]

FOUNDATION MODULES

[ ] Module 1: Introduction to Artificial Intelligence - Completed [Date]

[ ] Module 2: AI Systems at SGH - Completed [Date]

[ ] Module 3: AI Ethics and Responsible Use - Completed [Date]

[ ] Module 4: EU AI Act Essentials - Completed [Date]

ROLE-SPECIFIC ADVANCED MODULES

[ ] Module [X]: [Title] - Completed [Date]

[ ] Module [Y]: [Title] - Completed [Date]

[ ] Module [Z]: [Title] - Completed [Date]

PRACTICAL ASSESSMENTS

[ ] Foundation Knowledge Assessment - Score: [Score] - [Date]

[ ] Role-Specific Competency Assessment - Score: [Score] - [Date]

[ ] Practical Application Assessment - Rating: [Rating] - [Date]

CONTINUOUS LEARNING

[ ] Annual Refresher - Completed [Date]

[ ] [Specialized Training] - Completed [Date]

CERTIFICATION STATUS

[ ] Fully Certified

[ ] Provisionally Certified - Requires: [Requirements]

[ ] Certification Expired - Renewal Due: [Date]

Certified by: [Training Administrator]

Date: [Certification Date]

Valid until: [Expiration Date]

AI System Risk Assessment Template

AI SYSTEM RISK ASSESSMENT

System Name: [System Name]

Vendor/Provider: [Vendor]

Version/Model: [Version]

Date of Assessment: [Date]

SYSTEM DESCRIPTION

Primary Function: [Description]

Input Data Types: [List data types]

Output Formats: [List output types]

Integration Points: [Systems integrated with]

EU AI ACT CLASSIFICATION

[ ] Prohibited Practice

[ ] High-Risk System

[ ] Limited Risk System

[ ] Minimal Risk System

Justification for Classification:

[Detailed explanation with reference to specific AI Act provisions]

RISK EVALUATION

Potential Risks Identified:

1. [Risk description] - Likelihood: [H/M/L] - Impact: [H/M/L]

2. [Risk description] - Likelihood: [H/M/L] - Impact: [H/M/L]

3. [Risk description] - Likelihood: [H/M/L] - Impact: [H/M/L]

Mitigation Measures:

1. [Measure description] - Responsible: [Role] - Status: [Implemented/Planned]

2. [Measure description] - Responsible: [Role] - Status: [Implemented/Planned]

3. [Measure description] - Responsible: [Role] - Status: [Implemented/Planned]

COMPLIANCE REQUIREMENTS

Documentation Required:

[ ] Technical documentation

[ ] Risk management system

[ ] Data governance documentation

[ ] Human oversight mechanisms

[ ] Other: [Specify]

Testing and Validation:

[ ] Accuracy testing completed

[ ] Bias assessment completed

[ ] Security assessment completed

[ ] Human oversight validation completed

APPROVAL

Assessment Completed By: [Name/Role]

Reviewed By: [Name/Role]

Approved By: [Name/Role]

Next Review Date: [Date]

## **SECTION 6: TRAINING PROGRAM EVALUATION**

### **1. Effectiveness Metrics**

Knowledge Gain Measurement

* Pre/post assessment score improvements
* Knowledge retention testing (30/60/90 days)
* Application of learning in workplace scenarios
* Self-reported confidence levels
* Manager-observed competency changes

Behavioral Change Indicators

* Proper documentation of AI usage
* Appropriate escalation of concerns
* Verification practices implementation
* Compliance with AI usage policies
* Collaboration with colleagues on AI topics

Business Impact Assessment

* Reduction in AI-related incidents
* Improved quality of AI-assisted outputs
* Efficiency gains through appropriate AI use
* Compliance audit readiness
* Client satisfaction with AI-assisted services

### **2. Continuous Improvement Mechanism**

Feedback Collection

* Post-module user surveys
* Focus group discussions
* Facilitator observations
* Manager input on observed changes
* Periodic program review sessions

Curriculum Refinement Process

* Quarterly content review meetings
* Regulatory update incorporation
* Real-world scenario additions
* Feedback-based module adjustments
* New AI system integration

Documentation Updates

* Version control for all materials
* Change log maintenance
* Distribution of updated resources
* Notification of significant changes
* Archive of previous versions

## **CONCLUSION: IMPLEMENTATION GUIDANCE**

### **Critical Success Factors**

1. Leadership Endorsement: Visible support from senior management
2. Resource Allocation: Sufficient time and tools for participation
3. Accountability: Clear responsibility for program completion
4. Relevance: Direct application to daily work
5. Continuous Reinforcement: Ongoing learning opportunities

### **Implementation Timeline**

1. Month 1: Program preparation and pilot testing
2. Month 2-3: Foundation module rollout to all employees
3. Month 4-6: Role-specific advanced module implementation
4. Ongoing: Continuous learning and refresher training

### **Key Performance Indicators**

1. Training completion rates by department
2. Knowledge assessment scores
3. Policy compliance rates
4. Documentation quality metrics
5. Incident reduction metrics

This comprehensive AI Literacy Training Program provides a structured approach to ensuring SGH Group meets the EU AI Act requirements while developing practical competencies for effective and responsible AI use in daily operations. The program's modular design allows for customization based on roles, technical knowledge, and specific AI systems while maintaining consistency in core knowledge requirements.

Copy

can you give me the comphrehensive trainng materials which we will training for all employees of SGH . I wan to use it to import on the training module of my app which built by replit.com

Thinking Process

# AI Literacy Training Materials - SGH Group

Below are complete training materials for the foundational AI literacy training modules required for all SGH employees. These materials are structured in a format that should be easy to import into your Replit-based training app.

## Module 1: Introduction to Artificial Intelligence

### Module Description

This module provides a foundational understanding of artificial intelligence, its capabilities, limitations, and common applications relevant to SGH's business operations.

### Learning Objectives

* Define artificial intelligence and distinguish it from traditional software
* Identify different types of AI systems and their capabilities
* Understand key AI terminology and concepts
* Recognize AI applications relevant to SGH's business

### Lesson 1: AI Fundamentals

#### What is Artificial Intelligence?

Artificial Intelligence (AI) refers to systems designed to perform tasks that typically require human intelligence. Unlike traditional software that follows explicit programming instructions, AI systems can learn from data, adapt to new inputs, and perform tasks with some degree of autonomy.

Key characteristics of AI include:

* Learning from experience or data
* Adapting to new situations
* Making predictions or recommendations
* Processing and "understanding" natural language
* Recognizing patterns in complex data
* Performing tasks with some degree of autonomy

#### Types of AI

AI can be categorized in several ways:

By Capability:

* Narrow/Weak AI: Systems designed for specific tasks (all current AI systems)
* General AI: Hypothetical systems with human-level intelligence across domains
* Superintelligent AI: Theoretical systems that would surpass human capabilities

By Approach:

* Rule-based systems: Follow explicit, predefined rules
* Machine learning systems: Learn patterns from data without explicit programming
* Deep learning systems: Use neural networks with multiple layers for complex pattern recognition

By Learning Method:

* Supervised learning: Trained on labeled data
* Unsupervised learning: Find patterns in unlabeled data
* Reinforcement learning: Learn through trial and error with rewards/penalties

#### AI Technologies and Applications

Natural Language Processing (NLP)

* Enables machines to understand, interpret, and generate human language
* Applications: chatbots, translation, text summarization, sentiment analysis
* Examples at SGH: Microsoft Copilot, ChatGPT

Computer Vision

* Enables machines to interpret and understand visual information
* Applications: image recognition, object detection, facial recognition
* Examples at SGH: Adobe Creative Suite AI features

Machine Learning

* Algorithms that improve through experience/data without explicit programming
* Applications: predictive analytics, recommendation systems, anomaly detection
* Examples at SGH: Business intelligence tools, Odoo AI features

### Lesson 2: How AI Works

#### The Basic Model of AI Systems

All AI systems follow a general input-processing-output model:

1. Input: Data fed into the system (text, images, numbers, etc.)
2. Processing: Algorithms analyze the input using trained models
3. Output: Results produced by the system (predictions, text, categorizations, etc.)

This process is built upon:

Data: The foundation of most modern AI systems

* Training data teaches the AI system patterns and relationships
* Quality, quantity, and diversity of data directly impact AI performance
* Biased or limited data leads to biased or limited AI outputs

Algorithms: The methods used to process data

* Different algorithms are suited to different types of problems
* Range from simple decision trees to complex neural networks
* Algorithm selection affects accuracy, speed, and explainability

Models: The result of training algorithms on data

* Represent what the AI system has "learned"
* Can be updated with new data (continuous learning)
* Quality depends on both data and algorithm choices

#### The Role of Training in AI

Most modern AI systems follow this development process:

1. Data Collection: Gathering relevant, diverse, high-quality data
2. Data Preparation: Cleaning, organizing, and labeling data
3. Training: Algorithms learn patterns from the training data
4. Validation: Testing on reserved data to ensure accuracy
5. Deployment: Making the model available for use
6. Monitoring: Observing performance and updating as needed

#### AI Capabilities and Limitations

What AI Can Do Well:

* Process large amounts of data quickly
* Identify patterns humans might miss
* Perform repetitive tasks consistently
* Make predictions based on historical patterns
* Generate content based on training data

What AI Currently Cannot Do Well:

* Understand context like humans do
* Apply common sense reasoning
* Adapt to completely novel situations
* Experience emotions or consciousness
* Guarantee completely unbiased outputs
* Explain its decision-making process (especially deep learning)

### Lesson 3: AI in Business Operations

#### Common Business Applications

Administrative Automation

* Document processing and analysis
* Meeting scheduling and summarization
* Email drafting and prioritization
* Data entry and validation

Customer Service Enhancement

* Automated responses to common inquiries
* Customer sentiment analysis
* Service personalization
* Issue categorization and routing

Business Intelligence

* Data analysis and pattern identification
* Predictive analytics and forecasting
* Anomaly detection
* Automated reporting and insights

Operational Optimization

* Resource allocation and scheduling
* Process efficiency analysis
* Quality control
* Predictive maintenance

#### AI in Technical Services (SGH's Sector)

Technical Documentation

* Automated document generation
* Technical language processing
* Drawing and diagram analysis
* Error detection in documentation

Service Optimization

* Predictive maintenance scheduling
* Resource allocation for service calls
* Parts inventory optimization
* Service route optimization

Client Communication

* Technical query assistance
* Document summarization
* Translation services
* Custom communication drafting

#### Benefits and Challenges of AI Implementation

Benefits:

* Increased efficiency and productivity
* Enhanced decision-making through data analysis
* Improved customer experiences
* Reduced errors in routine tasks
* New service and product opportunities

Challenges:

* Ensuring data quality and addressing bias
* Maintaining appropriate human oversight
* Managing employee concerns about job displacement
* Complying with evolving regulations
* Securing AI systems against vulnerabilities
* Ensuring transparency and explainability

### Knowledge Check Questions

1. Which of the following best describes artificial intelligence?
   * a) Any computer program that automates tasks
   * b) Systems designed to perform tasks that typically require human intelligence
   * c) Robots that look and act like humans
   * d) Programs that follow explicit step-by-step instructions
2. Which factor most directly impacts the quality of a machine learning system's output?
   * a) The processing speed of the computer
   * b) The quality and representativeness of the training data
   * c) The number of people using the system
   * d) The physical location of the servers
3. Which of the following is a current limitation of AI systems?
   * a) Processing large amounts of data
   * b) Identifying patterns in structured data
   * c) Understanding context like humans do
   * d) Performing repetitive tasks consistently
4. In the context of AI, what does "narrow AI" refer to?
   * a) AI systems that are physically small
   * b) AI systems designed for specific tasks
   * c) AI systems with limited processing power
   * d) AI systems that focus only on text processing
5. Which of these is an example of how SGH might use AI in technical services?
   * a) Replacing all technical staff with robots
   * b) Creating fully autonomous service vehicles
   * c) Optimizing service scheduling and resource allocation
   * d) Eliminating the need for customer interaction

### Additional Resources

* Glossary of AI terminology
* Short video: "AI Basics in 5 Minutes"
* Infographic: "AI vs. Traditional Software"
* Article: "How AI is Transforming Technical Services"

## Module 2: AI Systems at SGH

### Module Description

This module provides practical knowledge about the specific AI systems used at SGH, including appropriate use cases, limitations, and best practices for each tool.

### Learning Objectives

* Identify the AI systems currently used within SGH
* Understand appropriate use cases for each AI system
* Recognize the limitations of each AI tool
* Apply best practices for effective and responsible AI use

### Lesson 1: Overview of SGH's AI Ecosystem

#### AI Strategy at SGH

SGH has adopted a strategic approach to AI implementation focused on:

* Enhancing service quality through AI-assisted technical support
* Improving operational efficiency with automated processes
* Supporting employee productivity with AI-powered tools
* Enabling data-driven decision making through advanced analytics

Our AI implementation is guided by these principles:

1. Human-centered approach: AI complements human expertise, not replaces it
2. Pragmatic adoption: Focus on proven use cases with clear benefits
3. Responsible implementation: Ethical considerations and compliance first
4. Continuous evolution: Regular assessment and improvement of AI systems

#### AI Governance at SGH

All AI systems at SGH are subject to:

* Usage policies defining appropriate applications
* Oversight requirements specifying human review processes
* Data governance guidelines ensuring proper data handling
* Documentation standards for tracking AI use
* Review procedures for evaluating effectiveness and compliance

Every employee shares responsibility for proper AI use according to these frameworks.

### Lesson 2: General Office AI Tools

#### Microsoft Copilot

System Overview: Microsoft Copilot is an AI assistant integrated into Microsoft 365 applications that helps with content creation, data analysis, and productivity tasks.

Key Capabilities:

* Document drafting and editing assistance in Word
* Data analysis and visualization in Excel
* Presentation creation and enhancement in PowerPoint
* Email drafting and management in Outlook
* Meeting summarization and task tracking in Teams

Appropriate Use Cases:

* Drafting initial versions of routine documents
* Summarizing lengthy documents or email threads
* Generating data visualizations and insights
* Creating presentation outlines and content suggestions
* Organizing and prioritizing information

Limitations:

* May produce inaccurate or outdated information
* Limited understanding of SGH-specific contexts
* Potential inconsistency in content style and tone
* Variable quality depending on clarity of prompts
* Limited access to SGH's proprietary information

Best Practices:

* Provide clear, specific prompts for better results
* Always review and verify AI-generated content
* Do not share confidential information through prompts
* Use as a starting point, not a final product
* Document AI assistance when required by policy

SGH Usage Policy:

* Authorized for all employees with Microsoft 365 licenses
* Must follow the "AI-Generated Content Guidelines"
* Required review process for external communications
* Confidential information restrictions apply
* Usage must be logged for certain applications

#### ChatGPT and Similar LLMs

System Overview: ChatGPT and similar large language models (LLMs) are conversational AI systems that can generate text-based content, answer questions, and assist with various tasks.

Key Capabilities:

* Generating written content based on prompts
* Answering questions and providing information
* Summarizing and analyzing text
* Brainstorming ideas and solutions
* Drafting communications and documentation

Appropriate Use Cases:

* Research assistance and information gathering
* Drafting routine communications
* Generating ideas during brainstorming
* Creating first drafts of documentation
* Summarizing complex information

Limitations:

* Potential for factual errors or "hallucinations"
* Limited knowledge cutoff (not current information)
* No access to SGH's internal systems or data
* Variable quality of outputs
* Risk of confidentiality breaches if misused

Best Practices:

* Verify all factual information independently
* Do not share confidential company or client information
* Use for ideation and drafting, not final decisions
* Document AI usage according to company policy
* Maintain appropriate human oversight

SGH Usage Policy:

* Approved tools: [List of approved LLM tools]
* Confidentiality guidelines must be followed
* External communications require human review
* Usage logging required for [specific contexts]
* Prohibited for [specific sensitive activities]

#### Adobe Creative Cloud AI Features

System Overview: Adobe Creative Cloud includes various AI-powered features (Adobe Sensei) that assist with design, photo editing, video production, and other creative tasks.

Key Capabilities:

* Generative Fill and Expand in Photoshop
* Content-Aware features for image editing
* Auto-reframe and scene detection in video editing
* Font matching and recommendation
* Design suggestion and automation features

Appropriate Use Cases:

* Enhancing and editing images for documentation
* Creating and modifying graphics for presentations
* Generating design elements for marketing materials
* Video editing and enhancement
* Streamlining creative workflows

Limitations:

* Variable quality depending on input materials
* Potential copyright concerns with generated content
* May not align with SGH brand guidelines without adjustments
* Limited understanding of complex design intentions
* Performance varies based on complexity of the task

Best Practices:

* Review all AI-generated content for quality and appropriateness
* Ensure compliance with licensing and copyright requirements
* Adapt outputs to meet SGH brand standards
* Document AI usage in creative projects when required
* Combine AI suggestions with human creative judgment

SGH Usage Policy:

* Authorized for employees with Adobe Creative Cloud licenses
* Generated content must comply with SGH brand guidelines
* Copyright documentation required for external usage
* Client approval needed for client-facing materials
* Proper attribution required in specific contexts

#### Odoo AI Capabilities

System Overview: Odoo, SGH's enterprise resource planning (ERP) system, incorporates AI features for business intelligence, automation, and operational optimization.

Key Capabilities:

* Automated data entry and validation
* Predictive inventory management
* Customer behavior analysis
* Automated report generation
* Process optimization recommendations

Appropriate Use Cases:

* Streamlining routine data processing
* Forecasting inventory and resource needs
* Analyzing business performance trends
* Optimizing operational workflows
* Enhancing customer relationship management

Limitations:

* Dependent on data quality within the system
* Requires proper configuration for accuracy
* Limited context understanding for unusual situations
* Recommendations require business expertise to evaluate
* System-specific functionality constraints

Best Practices:

* Maintain data quality and consistency in the system
* Verify automated entries and recommendations
* Combine AI insights with domain expertise
* Report unusual or incorrect behaviors to IT
* Follow proper data governance procedures

SGH Usage Policy:

* Standard access for employees based on role permissions
* Critical decisions require human verification
* Data quality responsibilities by department
* Escalation procedures for system issues
* Regular audit of automated processes

### Lesson 3: Business-Specific AI Applications

#### Technical Service Optimization Systems

System Overview: AI-powered systems that optimize service scheduling, resource allocation, and predictive maintenance for SGH's technical service operations.

Key Capabilities:

* Service scheduling optimization
* Technician routing and assignment
* Parts inventory prediction
* Service time estimation
* Preventive maintenance recommendations

Appropriate Use Cases:

* Planning service schedules and resource allocation
* Optimizing technician routes and assignments
* Forecasting parts and inventory needs
* Predicting maintenance requirements
* Analyzing service efficiency

Limitations:

* Recommendations may not account for all real-world factors
* Quality dependent on historical data accuracy
* May prioritize efficiency over other factors
* Limited adaptation to unexpected situations
* Requires domain expertise to interpret effectively

Best Practices:

* Review and adjust AI-generated schedules as needed
* Consider customer-specific factors not in the system
* Balance efficiency with service quality considerations
* Document overrides and their rationale
* Provide feedback to improve system accuracy

SGH Usage Policy:

* Authorized for service planning personnel
* Human review required before implementation
* Override authority defined by role
* Documentation requirements for schedule changes
* Client communication protocols for AI-influenced scheduling

#### Customer Service AI Applications

System Overview: AI systems that assist with customer interactions, inquiries, and support services across SGH's business operations.

Key Capabilities:

* Customer inquiry categorization and routing
* Automated responses to common questions
* Sentiment analysis of customer communications
* Personalization of customer interactions
* Issue prioritization and escalation

Appropriate Use Cases:

* Initial response to standard inquiries
* Routing requests to appropriate departments
* Identifying urgent customer issues
* Gathering preliminary information
* Following up on resolved issues

Limitations:

* Limited understanding of complex or unique issues
* Potential for misinterpreting customer intent
* Variable tone sensitivity in communications
* Cannot fully replace human empathy and judgment
* May miss important context in customer situations

Best Practices:

* Monitor automated responses for appropriateness
* Promptly address escalated or complex issues
* Review sentiment analysis before taking action
* Personalize automated communications when possible
* Maintain clear escalation paths to human agents

SGH Usage Policy:

* System access based on customer service role
* Required review for sensitive customer situations
* Transparency requirements about AI use with customers
* Documentation of automated vs. human interactions
* Quality monitoring and improvement processes

#### Business Intelligence and Analytics AI

System Overview: AI-enhanced analytics systems that process business data to provide insights, forecasts, and decision support across SGH operations.

Key Capabilities:

* Automated data analysis and visualization
* Trend identification and forecasting
* Anomaly detection in business metrics
* Performance prediction and modeling
* Automated reporting and insights generation

Appropriate Use Cases:

* Regular business performance analysis
* Market trend identification
* Operational efficiency assessment
* Resource allocation planning
* Risk and opportunity identification

Limitations:

* Analysis quality depends on data completeness
* Historical patterns may not predict future changes
* Correlation identification without causation
* Limited context understanding for anomalies
* May not account for external factors

Best Practices:

* Combine AI insights with domain expertise
* Verify unusual findings before acting
* Consider contextual factors outside the data
* Use multiple sources for important decisions
* Document analytical methods and assumptions

SGH Usage Policy:

* Access rights defined by role and department
* Critical business decisions require human analysis
* Documentation requirements for AI-influenced decisions
* Data sharing restrictions between departments
* Regular validation of analytical models

### Lesson 4: AI Usage Guidelines at SGH

#### General Principles for AI Use

All AI usage at SGH should follow these core principles:

1. Accuracy and Quality
   * Verify AI outputs before use in business decisions
   * Ensure inputs are clear and high-quality
   * Cross-check important information with reliable sources
   * Report consistent inaccuracies to improve systems
2. Transparency
   * Be clear about when AI has been used
   * Document AI assistance in required contexts
   * Disclose AI use to clients when appropriate
   * Maintain records of significant AI-assisted decisions
3. Security and Confidentiality
   * Never share confidential information with external AI tools
   * Follow data classification policies for all AI interactions
   * Use only approved AI systems for business purposes
   * Report potential security concerns immediately
4. Human Oversight
   * Maintain appropriate human review of AI outputs
   * Exercise professional judgment when using AI recommendations
   * Understand your responsibility for AI-assisted work
   * Know when to escalate decisions beyond AI assistance
5. Continuous Improvement
   * Provide feedback to improve AI systems
   * Report unusual or problematic AI behaviors
   * Suggest new use cases that could benefit from AI
   * Participate in AI training and development initiatives

#### Documentation Requirements

SGH requires documentation of AI use in the following contexts:

High-Impact Business Decisions

* Client proposals and contracts
* Major resource allocation decisions
* Significant financial analyses
* Strategic planning documents

External Communications

* Client deliverables and reports
* Marketing and promotional materials
* Official company statements
* Regulatory submissions

Technical Services

* Service recommendations
* Technical diagnoses
* Solution designs
* Implementation plans

Required Documentation Elements:

* AI systems used
* Purpose of AI assistance
* Human review conducted
* Verification methods applied
* Modifications to AI outputs

#### Escalation Procedures

When to escalate AI-related concerns:

1. Accuracy Issues
   * Consistent errors or problematic patterns
   * Critical inaccuracies that could impact decisions
   * Outdated or contradictory information
2. Ethical Concerns
   * Potential bias in AI outputs
   * Questionable recommendations
   * Privacy or confidentiality issues
3. System Problems
   * Unusual system behavior or responses
   * Access or functionality issues
   * Security concerns

Escalation Path:

1. Immediate supervisor or department AI champion
2. IT Help Desk for technical issues
3. AI Governance Committee for policy questions
4. Data Protection Officer for privacy concerns
5. Compliance Officer for regulatory issues

### Knowledge Check Questions

1. When using Microsoft Copilot at SGH, which of the following is a required practice?
   * a) Using it to make final decisions without review
   * b) Sharing all available company data to improve results
   * c) Reviewing and verifying AI-generated content
   * d) Bypassing company approval processes for efficiency
2. According to SGH policy, which of the following would require documentation of AI usage?
   * a) Using ChatGPT to brainstorm ideas for yourself
   * b) Using Copilot to check email grammar
   * c) Including AI-generated content in a client deliverable
   * d) Using Adobe AI tools for personal creative projects
3. Which limitation applies to both ChatGPT and Microsoft Copilot?
   * a) They cannot process visual information
   * b) They may produce inaccurate information
   * c) They are only available to management-level employees
   * d) They require specialized programming knowledge
4. When an AI system makes a recommendation for technical service scheduling, what is the appropriate action?
   * a) Implement the recommendation without changes
   * b) Reject the recommendation and use manual scheduling
   * c) Review the recommendation and adjust if necessary
   * d) Escalate all AI recommendations to management
5. If you notice that an AI system is consistently producing biased outputs, what should you do?
   * a) Ignore it as all AI systems have bias
   * b) Follow the escalation procedure to report the issue
   * c) Stop using all AI systems immediately
   * d) Correct the outputs yourself but continue using the system

### Additional Resources

* Quick reference guide for each AI system
* Decision tree for appropriate AI tool selection
* Template for AI usage documentation
* FAQ document addressing common questions
* Contact information for AI support resources

## Module 3: AI Ethics and Responsible Use

### Module Description

This module covers the ethical dimensions of AI, including potential biases, limitations, and responsibilities for ensuring fair and appropriate use of AI technologies at SGH.

### Learning Objectives

* Recognize ethical considerations in AI development and use
* Identify potential biases and limitations in AI systems
* Apply responsible AI practices in daily work
* Understand data privacy implications of AI systems

### Lesson 1: Ethical Frameworks for AI

#### Key Ethical Principles

AI ethics is built on several foundational principles that guide responsible development and use:

Fairness and Non-discrimination

* AI systems should treat all individuals equitably
* Outputs should not discriminate based on protected characteristics
* Benefits of AI should be accessible to diverse populations
* Historical biases should be identified and mitigated

Transparency and Explainability

* The operation of AI systems should be understandable
* Users should know when they are interacting with AI
* Decision-making processes should be explainable
* Limitations should be clearly communicated

Privacy and Data Protection

* Personal data should be protected in AI systems
* Data collection should be minimized to what's necessary
* Individuals should have appropriate control over their data
* Data security should be maintained throughout the AI lifecycle

Safety and Security

* AI systems should be reliable and behave as intended
* Potential for harmful outputs should be minimized
* Systems should be secure against unauthorized manipulation
* Testing should verify operation within safe parameters

Accountability and Responsibility

* Clear ownership for AI decisions and impacts
* Mechanisms for redress when harms occur
* Ongoing monitoring of AI system performance
* Liability frameworks for AI-related incidents

Human Autonomy and Oversight

* Humans should maintain appropriate control over AI systems
* AI should support human decision-making, not undermine it
* Critical decisions should include meaningful human involvement
* People should be able to contest AI-based decisions

#### Understanding AI Bias

Sources of AI Bias:

1. Training Data Bias
   * Historical biases reflected in training data
   * Underrepresentation of certain groups
   * Overrepresentation of stereotypes
   * Mislabeled or skewed data samples
2. Algorithm Design Bias
   * Feature selection that favors certain groups
   * Inappropriate proxies for protected attributes
   * Optimization goals that create unfair outcomes
   * Inadequate testing across diverse scenarios
3. Deployment Context Bias
   * Using systems in contexts different from training
   * Applying universal models to specialized situations
   * Misinterpreting AI outputs in cultural contexts
   * User interactions that amplify biases

Common Types of Bias:

* Selection bias: Training data doesn't represent the population
* Measurement bias: Different quality of data across groups
* Aggregation bias: One-size-fits-all models for diverse groups
* Evaluation bias: Testing that misses important fairness issues
* Presentation bias: How outputs are displayed affects perception

Bias Mitigation Strategies:

1. At SGH's Organizational Level:
   * Diverse teams involved in AI selection and implementation
   * Regular auditing of AI systems for fairness
   * Clear policies for responding to identified bias
   * Training on bias recognition and mitigation
2. For Individual Employees:
   * Question assumptions in AI outputs
   * Consider diverse perspectives when evaluating results
   * Document potential bias concerns
   * Verify AI decisions across different groups

#### Global Perspectives on AI Ethics

AI ethics is an evolving field with perspectives that vary across cultures, regions, and stakeholders:

Regional Approaches:

* European focus on rights, regulation, and precaution
* North American emphasis on innovation and guidelines
* Asian perspectives balancing technological advancement and social harmony

Sectoral Considerations:

* Healthcare: patient autonomy and beneficence
* Finance: fairness and explainability
* Public services: democratic values and accessibility
* Technical services: quality, reliability, and transparency

Evolving Standards:

* Industry codes of conduct
* Professional ethics guidelines
* International principles and declarations
* Emerging regulations and standards

SGH's Approach:

* Alignment with EU values and regulations
* Commitment to international ethical standards
* Regular evaluation of ethical frameworks
* Adaptation as consensus evolves
* Sector-specific ethical considerations

### Lesson 2: Recognizing AI Limitations

#### Understanding AI "Hallucinations"

AI systems, particularly large language models, can generate content that appears plausible but is actually incorrect or fabricated. These are commonly referred to as "hallucinations."

What Causes AI Hallucinations:

* Gaps in training data leading to incorrect inferences
* Statistical nature of prediction vs. factual knowledge
* Attempts to provide answers when uncertain
* Patterns mistakenly applied to new contexts
* Lack of real-world grounding

Common Types of Hallucinations:

* Fabricated facts, figures, and statistics
* Non-existent sources or references
* Invented historical events or details
* Made-up people, organizations, or products
* False technical explanations

How to Detect Hallucinations:

* Check factual claims against reliable sources
* Look for overly precise or convenient information
* Be wary of unusual or unexpected details
* Verify references and citations
* Consider whether the information seems plausible

Minimizing Hallucination Risks:

* Use clear, specific prompts
* Request evidence or reasoning
* Verify important information independently
* Be especially careful in specialized domains
* Report persistent hallucinations for system improvement

#### Statistical Nature of AI

Modern AI systems are fundamentally statistical in nature, which creates important limitations:

Probabilistic vs. Deterministic Reasoning:

* AI makes predictions based on statistical patterns
* Higher confidence doesn't guarantee correctness
* Outputs represent likely answers, not certainties
* Edge cases and exceptions may be mishandled

Correlation vs. Causation:

* AI identifies correlations in data, not causal relationships
* Systems may mistake correlation for causation
* Important causal factors may be overlooked
* False patterns may be identified in limited data

Implications for Business Use:

* Critical decisions require verification
* Unusual predictions warrant special scrutiny
* Domain knowledge remains essential
* Complementary information sources are valuable
* Skepticism is appropriate for counter-intuitive results

#### Domain-Specific Limitations

AI capabilities vary significantly across different domains relevant to SGH's operations:

Technical Knowledge:

* Varying expertise across technical fields
* May lack specialized industry knowledge
* Technical standards change faster than training data
* Limited understanding of proprietary systems
* May not recognize domain-specific terminology

Business Operations:

* Limited understanding of SGH's specific processes
* Inability to access current company data
* Generic rather than company-specific insights
* May not account for SGH's business priorities
* Limited knowledge of competitive landscape

Customer Relations:

* Missing context on specific client relationships
* Limited understanding of service agreements
* Unable to access client history
* Generic rather than personalized insights
* May miss cultural or relationship nuances

Risk Assessment:

* Limited understanding of SGH's risk tolerance
* Inability to evaluate all business implications
* May miss context-specific risk factors
* Generic rather than company-specific risk models
* Difficulty balancing competing risk priorities

### Lesson 3: Data Privacy and AI

#### GDPR Implications for AI Usage

The General Data Protection Regulation (GDPR) establishes important requirements for AI systems that process personal data:

Key GDPR Principles for AI:

1. Lawful Basis for Processing
   * Clear legal grounds for using personal data in AI
   * Consent, contract, legitimate interest, or other basis
   * Purpose limitation to specified, explicit purposes
   * Documentation of lawful basis for AI applications
2. Data Minimization
   * Using only necessary personal data for AI systems
   * Limiting collection to relevant information
   * Avoiding excessive data retention
   * Regular review of data necessity
3. Transparency Requirements
   * Informing individuals about AI processing
   * Clear privacy notices explaining AI use
   * Information about logic involved in automated decisions
   * Disclosure of AI's role in significant decisions
4. Individual Rights
   * Right to access information about AI processing
   * Right to rectification of inaccurate data
   * Right to erasure ("right to be forgotten")
   * Right to object to certain AI processing
   * Right not to be subject to purely automated decisions with significant effects
5. Security Requirements
   * Appropriate technical and organizational measures
   * Protection against unauthorized processing
   * Regular security assessments
   * Data breach notification procedures

SGH-Specific GDPR Considerations:

* Data handling procedures for AI systems
* Documentation requirements for compliance
* Role-specific responsibilities
* Escalation paths for data protection concerns
* Integration with existing GDPR compliance framework

#### Personal Data in AI Systems

Understanding what constitutes personal data in AI contexts is essential for compliance:

Types of Personal Data in AI:

* Direct identifiers: names, IDs, email addresses
* Indirect identifiers: location, job title, unique characteristics
* Derived data: inferences, categorizations, predictions
* Behavioral data: usage patterns, preferences, interactions
* Generated content: communications, documents, feedback

Data Protection Considerations:

* Anonymization vs. pseudonymization
* Data retention limitations
* Purpose limitations for AI processing
* Cross-border data transfer restrictions
* Special category data (health, biometric, etc.)

Practical Implications for SGH Employees:

* How to identify personal data in AI contexts
* Appropriate data handling procedures
* Documentation requirements
* Responding to data subject requests
* When to consult the Data Protection Officer

#### Responsible Data Practices

Beyond compliance, responsible data practices support ethical AI use:

Data Quality and Governance:

* Ensuring accuracy and completeness
* Maintaining data lineage and provenance
* Regular data quality assessments
* Defined roles and responsibilities
* Documentation of data sources and limitations

Ethical Data Collection:

* Transparent collection practices
* Informed consent where appropriate
* Consideration of potential harms
* Cultural and contextual sensitivity
* Appropriate limitations on scope

Data Security Throughout the AI Lifecycle:

* Secure storage and transmission
* Access controls based on necessity
* Data encryption where appropriate
* Secure disposal when no longer needed
* Incident response procedures

SGH's Data Responsibility Framework:

* Department-specific procedures
* Documentation requirements
* Audit and monitoring processes
* Training and awareness programs
* Continuous improvement mechanisms

### Lesson 4: Responsible AI Practices

#### Verifying AI-Generated Information

Always verify AI outputs before making business decisions or sharing with others:

Verification Strategies:

1. Cross-Reference with Reliable Sources
   * Check factual claims against authoritative sources
   * Verify technical information with domain experts
   * Compare with official company documentation
   * Consult multiple sources for important information
2. Critical Evaluation
   * Consider the plausibility of the information
   * Look for internal consistency in the content
   * Evaluate whether the information aligns with known facts
   * Question unusual or surprising claims
3. Subject Matter Expert Review
   * Have domain experts review technical content
   * Seek input from relevant departments
   * Consult with colleagues knowledgeable in the area
   * Leverage organizational knowledge
4. Documentation of Verification
   * Record verification steps for important decisions
   * Note sources used for fact-checking
   * Document any corrections made
   * Maintain audit trail for significant outputs

Verification Checklist:

* Are factual claims accurate?
* Is the information complete?
* Are there misleading statements or implications?
* Does the content reflect SGH standards and values?
* Is the information current and relevant?

#### Maintaining Human Oversight

Appropriate human oversight ensures AI systems support rather than replace human judgment:

Levels of Human Oversight:

1. Human-in-the-Loop
   * AI provides recommendations, humans make decisions
   * Humans verify and approve AI outputs before use
   * Regular interaction between human and AI
   * Clear human responsibility for outcomes
2. Human-on-the-Loop
   * AI operates with some autonomy
   * Humans monitor and can intervene when needed
   * Regular review of AI operations
   * Defined parameters for acceptable AI behavior
3. Human-in-Command
   * Humans define the goals and constraints
   * AI operates within defined parameters
   * Humans retain ultimate authority
   * Regular evaluation of system performance

Oversight Best Practices:

* Match oversight level to risk and impact
* Document oversight decisions and rationale
* Maintain skills to effectively evaluate AI outputs
* Establish clear escalation paths for concerns
* Regularly review oversight mechanisms

SGH Oversight Requirements by AI Category:

* Critical business decisions: Human-in-the-loop
* Customer communications: Human review before external sharing
* Internal operations: Appropriate monitoring based on impact
* Creative content: Human review before finalization
* Data analysis: Human interpretation of significant findings

#### Transparency with Stakeholders

Maintaining appropriate transparency about AI use builds trust and manages expectations:

Internal Transparency:

* Clear communication about AI capabilities and limitations
* Documentation of AI use in business processes
* Sharing of lessons learned and best practices
* Open discussion of AI-related challenges
* Regular updates on AI implementation progress

Client Transparency:

* Appropriate disclosure of AI use in deliverables
* Clear explanation of AI's role in services
* Setting realistic expectations about AI capabilities
* Honesty about limitations and human oversight
* Addressing client questions and concerns

Implementation Partner Transparency:

* Clear roles and responsibilities for AI systems
* Shared understanding of data handling practices
* Joint oversight mechanisms where appropriate
* Open communication about issues and challenges
* Collaborative problem-solving for AI-related concerns

Transparency Guidelines:

* When to disclose AI use to different stakeholders
* Appropriate level of detail in disclosures
* Documentation requirements by situation
* Handling questions and concerns
* Balancing transparency with other considerations

### Knowledge Check Questions

1. Which of the following is an example of potential bias in an AI system?
   * a) The system requires internet access to function
   * b) The system generates different results for different ethnic groups despite similar circumstances
   * c) The system occasionally makes factual errors
   * d) The system requires human review of outputs
2. When an AI system provides information that seems plausible but you're unsure of its accuracy, what is the best course of action?
   * a) Accept the information if it seems reasonable
   * b) Verify the information with reliable independent sources
   * c) Ask the AI system if it's certain about the information
   * d) Ignore the information and rely only on your prior knowledge
3. Under GDPR, which of the following is required when using AI systems that process personal data?
   * a) Using all available personal data to ensure accuracy
   * b) Implementing appropriate data protection measures
   * c) Keeping personal data indefinitely for model improvement
   * d) Restricting AI use to management personnel only
4. When using AI to assist with customer service at SGH, what level of transparency is typically required?
   * a) No disclosure is necessary as long as the service is good
   * b) Detailed technical explanations of how the AI works
   * c) Appropriate disclosure of AI's role in service delivery
   * d) Only disclose AI use if something goes wrong
5. What is meant by "human-in-the-loop" in the context of AI oversight?
   * a) Humans should be replaced by AI systems in repetitive tasks
   * b) Humans make final decisions while AI provides recommendations
   * c) Humans should monitor AI but not intervene
   * d) AI should be designed to mimic human behavior perfectly

### Additional Resources

* Guide to spotting and addressing bias in AI outputs
* GDPR compliance checklist for AI usage
* Decision tree for determining appropriate human oversight
* Case studies of ethical AI implementation
* Transparency templates for different stakeholders

## Module 4: EU AI Act Essentials

### Module Description

This module provides a practical understanding of the EU AI Act, its requirements, and implications for SGH's business operations and employee responsibilities.

### Learning Objectives

* Understand the purpose and structure of the EU AI Act
* Identify different risk categories and corresponding requirements
* Recognize individual responsibilities under the regulation
* Follow company procedures for compliance

### Lesson 1: EU AI Act Overview

#### Purpose and Scope

The EU AI Act (Regulation (EU) 2024/1689) is the world's first comprehensive legal framework specifically addressing artificial intelligence:

Core Objectives:

* Ensure AI systems placed on the EU market are safe and respect fundamental rights
* Create legal certainty to facilitate AI investment and innovation
* Enhance governance and effective enforcement of existing law
* Facilitate development of a single market for lawful, safe, and trustworthy AI

Scope of Application:

* Applies to providers placing AI systems on the EU market
* Covers users of AI systems located within the EU
* Includes third-country providers and users whose AI outputs are used in the EU
* Encompasses both public and private sector applications
* Excludes systems used exclusively for military, defense, or national security

Key Implementation Dates:

* February 2, 2025: Prohibitions and AI literacy requirements
* August 2, 2025: Rules for general-purpose AI models
* August 2, 2026: Requirements for high-risk AI systems
* August 2, 2027: Extended deadline for certain high-risk systems

Relationship to Other Regulations:

* Complements rather than replaces existing EU laws
* Works alongside GDPR for data protection
* Interacts with sector-specific regulations
* Part of broader EU digital strategy

#### Risk-Based Approach

The EU AI Act classifies AI systems into four risk categories, with requirements proportionate to potential harm:

1. Unacceptable Risk (Prohibited Practices)

* Systems that pose a clear threat to people's safety, livelihoods, or rights
* Examples include social scoring, manipulative systems, and certain biometric identification
* Complete prohibition with limited exceptions
* Substantial penalties for violations

2. High-Risk Systems

* Systems with significant potential impact on health, safety, or fundamental rights
* Two main categories:
  + Safety components of regulated products (e.g., medical devices)
  + Standalone systems in high-risk areas (e.g., employment, education)
* Subject to strict requirements including risk management, data governance, and human oversight
* Conformity assessment and registration required

3. Limited Risk Systems

* Systems with specific transparency requirements
* Examples include chatbots, emotion recognition, and deepfakes
* Users must be informed they are interacting with AI
* AI-generated content must be properly labeled
* Less stringent requirements than high-risk systems

4. Minimal Risk Systems

* The majority of current AI applications
* Examples include AI-enabled video games, spam filters, inventory management
* Voluntary codes of conduct encouraged
* No specific mandatory requirements

SGH's AI Systems by Risk Category:

* [List of SGH systems by risk category based on assessment]

#### Key Compliance Requirements

The EU AI Act introduces various obligations depending on an organization's role and the risk level of AI systems:

Provider Obligations:

* Ensure AI systems comply with requirements before market placement
* Implement risk management systems
* Maintain technical documentation
* Enable logging capabilities
* Ensure transparency and instructions for users
* Implement quality management and post-market monitoring

Deployer (User) Obligations:

* Use high-risk AI systems according to instructions
* Ensure human oversight as specified
* Monitor operation and report incidents
* Maintain logs automatically generated by the systems
* Conduct data protection impact assessments where applicable

High-Risk System Requirements:

* Risk management system
* Data governance and management
* Technical documentation
* Record-keeping capabilities
* Transparency and information provision
* Human oversight mechanisms
* Accuracy, robustness, and cybersecurity

General-Purpose AI Model Requirements:

* Technical documentation
* Compliance with copyright law
* Publication of content summary used for training
* For systemic risk models: additional evaluation, testing, and risk mitigation

### Lesson 2: AI Literacy Requirements

#### Understanding Article 4

Article 4 of the EU AI Act contains specific requirements for AI literacy that became applicable on February 2, 2025:

Core Requirement: "Providers and deployers of AI systems shall take measures to ensure, to their best extent, a sufficient level of AI literacy of their staff and other persons dealing with the operation and use of AI systems on their behalf."

Key Elements:

* Applies to both providers and deployers of AI systems
* Covers staff and other persons operating/using AI on the organization's behalf
* Requires "sufficient" level of AI literacy
* Must be appropriate to the context of AI system use
* Must consider technical knowledge, experience, education, and training
* Must account for persons on whom the AI systems are to be used

"To their best extent" means:

* Reasonable and proportionate measures
* Appropriate to the organization's size and resources
* Relevant to the specific AI systems in use
* Documented effort to provide necessary knowledge
* Continuous improvement and adaptation

#### SGH's AI Literacy Framework

SGH has implemented a comprehensive AI literacy framework to ensure compliance with Article 4:

Tiered Approach:

1. Basic Literacy (All Staff)
   * General AI awareness and concepts
   * Recognition of AI capabilities and limitations
   * Understanding of responsible AI use
   * Knowledge of company AI policies
2. Functional Literacy (AI System Users)
   * Specific training on relevant AI systems
   * Understanding system limitations and risks
   * Proper documentation and oversight procedures
   * Verification and quality control practices
3. Advanced Literacy (AI System Managers/Specialists)
   * Deeper technical understanding of AI systems
   * Risk assessment and mitigation strategies
   * Compliance requirements and documentation
   * Evaluation and monitoring skills

Implementation Components:

* Mandatory training programs
* Role-specific guidance materials
* Regular updates and refreshers
* Practical application exercises
* Assessment and documentation

Documentation Requirements:

* Training completion records
* Competency assessments
* Regular review of literacy needs
* Adaptation to new systems or requirements
* Evidence of "best extent" efforts

#### Individual Responsibilities

Every SGH employee has specific responsibilities related to AI literacy:

Personal Development:

* Complete required training modules
* Stay informed about AI systems relevant to your role
* Ask questions when AI functionality is unclear
* Report concerns about AI system performance
* Seek additional resources when needed

Team Support:

* Share knowledge with colleagues
* Support new team members in AI system use
* Participate in AI literacy initiatives
* Provide feedback on training effectiveness
* Suggest improvements to AI literacy resources

Operational Application:

* Apply AI literacy principles in daily work
* Follow established procedures for AI system use
* Maintain appropriate documentation
* Exercise appropriate oversight and verification
* Contribute to continuous improvement

Development Opportunities:

* AI literacy courses and certifications
* Peer learning and knowledge sharing
* External resources and events
* Feedback and suggestion mechanisms
* Career development pathways

### Lesson 3: Prohibited AI Practices

#### Understanding Article 5 Prohibitions

Article 5 of the EU AI Act prohibits specific AI practices considered to present unacceptable risks:

1. AI Systems Using Subliminal or Manipulative Techniques

* Systems designed to materially distort behavior
* Use of techniques beyond a person's consciousness
* Causing physical or psychological harm
* Exploiting vulnerabilities due to age, disability, or social/economic situation

2. Social Scoring Systems

* Evaluation of trustworthiness based on social behavior or personal characteristics
* Leading to detrimental or unfavorable treatment in social contexts
* Disproportionate to behavior or context
* Unrelated to specific contexts of original data collection

3. Biometric Categorization Systems

* Systems using biometrics to categorize people by sensitive characteristics
* Categories include race, political opinion, religious beliefs, sexual orientation
* Exceptions for law enforcement with appropriate safeguards

4. Emotion Recognition Systems

* Prohibited in workplaces and educational institutions
* Exceptions for medical or safety purposes
* Requires appropriate safeguards when permitted

5. Predictive Policing Systems

* Systems evaluating likelihood of criminal offense
* Based solely on profiling or personality traits
* Exceptions for systems using objective factors

6. Facial Recognition Databases

* Creation through untargeted scraping of facial images
* Includes scraping from internet or CCTV footage
* Creating facial recognition databases violating existing laws

7. Remote Biometric Identification (RBI)

* "Real-time" RBI in publicly accessible spaces for law enforcement
* Limited exceptions for specific serious crimes
* Subject to prior authorization and strict safeguards

#### Applying Prohibitions at SGH

Understanding how these prohibitions apply in SGH's business context:

Relevant Risk Areas:

* Customer interaction systems
* Employee monitoring and management tools
* Marketing and advertising technologies
* Data analysis and profiling systems
* Service delivery AI applications

Prohibited Practices Examples:

* Systems that manipulate vulnerable clients into unnecessary services
* Employee monitoring tools that analyze emotional states
* AI recruiting tools that create comprehensive social profiles
* Marketing systems designed to exploit psychological vulnerabilities
* Biometric systems categorizing customers by protected characteristics

Compliance Safeguards:

* Regular review of AI systems against prohibition criteria
* Documentation of compliance assessments
* Clear escalation process for potential violations
* Vendor assessment for third-party AI tools
* Ongoing monitoring for evolving capabilities

Red Flags That Warrant Review:

* Systems analyzing personal characteristics without clear purpose
* Tools monitoring behavior beyond business necessity
* Applications creating comprehensive profiles of individuals
* Systems designed to influence behavior subconsciously
* Technologies collecting biometric data without clear justification

#### Sanctions and Penalties

Understanding the consequences of non-compliance:

Administrative Fines:

* Up to €35 million or 7% of worldwide annual turnover for prohibited practices
* Up to €15 million or 3% for other violations by providers
* Up to €7.5 million or 1.5% for supplying incorrect information

Additional Consequences:

* Reputational damage
* Loss of business opportunities
* Potential civil liability
* Corrective action requirements
* Market withdrawal of non-compliant systems

Mitigation Factors:

* Good faith compliance efforts
* Cooperation with authorities
* Prompt remediation of issues
* Effective compliance programs
* Self-reporting of violations

SGH's Compliance Approach:

* Zero tolerance for prohibited practices
* Regular compliance assessments
* Swift action on potential violations
* Documentation of compliance measures
* Continuous monitoring and improvement

### Lesson 4: Compliance Procedures at SGH

#### AI Inventory and Risk Assessment

SGH maintains a comprehensive inventory of AI systems and evaluates their risk levels:

Inventory Process:

* Regular technology audits to identify AI systems
* Documentation of system purpose and functionality
* Technical specifications and capabilities
* Deployment context and application
* Data processing activities

Risk Assessment Methodology:

* Initial screening against risk categories
* Detailed assessment for potential high-risk systems
* Documentation of assessment rationale
* Regular review as systems or regulations evolve
* Cross-functional review for critical systems

Classification Outcomes:

* Assignment of risk level (high, limited, minimal)
* Documentation of classification justification
* Identification of applicable requirements
* Compliance gap analysis
* Remediation planning

Employee Responsibilities:

* Report new AI systems for inventory inclusion
* Participate in risk assessments for relevant systems
* Provide accurate information about system use
* Implement required controls for assigned systems
* Report changes in system functionality or use

#### Documentation and Record-Keeping

Proper documentation is essential for EU AI Act compliance:

Required Documentation:

* AI system inventory records
* Risk assessment documentation
* Compliance measures implemented
* Training and literacy programs
* Incident reports and responses
* Human oversight mechanisms
* Verification and testing results

Record-Keeping Principles:

* Accessibility to authorized personnel
* Security and confidentiality protection
* Accuracy and completeness
* Regular updates and maintenance
* Retention according to policy

Documentation Responsibilities:

* Department managers: Ensure documentation completeness
* System users: Record significant usage information
* IT department: Maintain technical documentation
* Compliance team: Oversee documentation framework
* All employees: Follow documentation procedures

SGH Documentation Framework:

* Standard templates and formats
* Central documentation repository
* Regular documentation audits
* Review and update schedules
* Documentation training and guidance

#### Incident Reporting and Response

SGH has established procedures for reporting and responding to AI-related incidents:

Reportable Incidents:

* Bias or discrimination in AI outputs
* Significant accuracy or performance issues
* Security breaches involving AI systems
* Potential violations of prohibitions
* Compliance gaps or control failures

Reporting Process:

1. Identify potential incident
2. Document details and evidence
3. Report to supervisor and AI governance team
4. Participate in investigation as needed
5. Implement corrective actions as directed

Response Framework:

1. Incident assessment and classification
2. Immediate containment measures
3. Root cause analysis
4. Corrective action development
5. Implementation and verification
6. Documentation and reporting
7. Lessons learned and system improvements

Employee Responsibilities:

* Prompt reporting of potential incidents
* Accurate and complete information provision
* Cooperation with investigations
* Implementation of corrective measures
* Contribution to prevention efforts

### Knowledge Check Questions

1. Under the EU AI Act, which of the following best describes SGH's obligation regarding AI literacy?
   * a) Provide advanced technical training to all employees
   * b) Take measures to ensure, to the best extent, sufficient AI literacy for staff using or operating AI systems
   * c) Limit AI system access to employees with technical backgrounds
   * d) Hire external experts to handle all AI-related tasks
2. Which of the following would be classified as a prohibited practice under Article 5 of the EU AI Act?
   * a) Using AI to optimize service scheduling with human review
   * b) Implementing an AI system that categorizes employees based on their emotional states
   * c) Using ChatGPT to assist with drafting routine communications
   * d) Deploying an AI system to analyze business performance metrics
3. What is the appropriate action if you suspect an AI system at SGH might fall into the high-risk category?
   * a) Immediately stop using the system
   * b) Report your concerns through the established AI governance process
   * c) Continue using the system but don't tell anyone about it
   * d) Upgrade the system to add more features
4. Which of the following is a requirement for high-risk AI systems under the EU AI Act?
   * a) Fully autonomous operation without human intervention
   * b) Implementation of appropriate human oversight mechanisms
   * c) Access restricted to senior management only
   * d) Operation only during business hours
5. According to SGH's incident reporting procedures, what should you do if you notice an AI system consistently producing results that appear biased?
   * a) Adjust your use of the system to work around the bias
   * b) Document the issue and report it through the established incident reporting process
   * c) Ask colleagues if they've noticed the same problem before reporting
   * d) Assume it's a temporary issue that will resolve itself

### Additional Resources

* EU AI Act official text and guidance
* SGH AI governance framework documentation
* Risk assessment templates and examples
* Incident reporting forms and procedures
* Compliance checklist by risk category

## Assessment Questions Database

### Module 1: Introduction to Artificial Intelligence

1. Which of the following best describes artificial intelligence?
   * a) Any computer program that automates tasks
   * b) Systems designed to perform tasks that typically require human intelligence
   * c) Robots that look and act like humans
   * d) Programs that follow explicit step-by-step instructions
2. Which factor most directly impacts the quality of a machine learning system's output?
   * a) The processing speed of the computer
   * b) The quality and representativeness of the training data
   * c) The number of people using the system
   * d) The physical location of the servers
3. Which of the following is a current limitation of AI systems?
   * a) Processing large amounts of data
   * b) Identifying patterns in structured data
   * c) Understanding context like humans do
   * d) Performing repetitive tasks consistently
4. In the context of AI, what does "narrow AI" refer to?
   * a) AI systems that are physically small
   * b) AI systems designed for specific tasks
   * c) AI systems with limited processing power
   * d) AI systems that focus only on text processing
5. Which of these is an example of how SGH might use AI in technical services?
   * a) Replacing all technical staff with robots
   * b) Creating fully autonomous service vehicles
   * c) Optimizing service scheduling and resource allocation
   * d) Eliminating the need for customer interaction
6. What distinguishes machine learning from traditional programming?
   * a) Machine learning requires more lines of code
   * b) Machine learning uses more advanced programming languages
   * c) Machine learning systems learn from data rather than following explicit instructions
   * d) Machine learning only works on specialized computers
7. Which of the following is an example of natural language processing?
   * a) A robot that can navigate a warehouse
   * b) A system that can translate text from one language to another
   * c) A drone that can take aerial photographs
   * d) A program that can analyze financial data
8. What is a neural network in the context of AI?
   * a) A physical network of computers working together
   * b) A mathematical model inspired by the human brain's structure
   * c) A visual interface for programming AI systems
   * d) A hardware component required for AI processing
9. Which statement about AI capabilities is most accurate?
   * a) AI systems can fully replicate human reasoning in all situations
   * b) AI systems can process large amounts of data but have limitations in understanding context
   * c) AI systems are only useful for simple, repetitive tasks
   * d) AI systems never make mistakes once properly trained
10. Which AI application would be most relevant for SGH's technical service operations?
    * a) Generating creative artwork
    * b) Playing strategic board games
    * c) Optimizing service scheduling and resource allocation
    * d) Autonomous driving systems

### Module 2: AI Systems at SGH

1. When using Microsoft Copilot at SGH, which of the following is a required practice?
   * a) Using it to make final decisions without review
   * b) Sharing all available company data to improve results
   * c) Reviewing and verifying AI-generated content
   * d) Bypassing company approval processes for efficiency
2. According to SGH policy, which of the following would require documentation of AI usage?
   * a) Using ChatGPT to brainstorm ideas for yourself
   * b) Using Copilot to check email grammar
   * c) Including AI-generated content in a client deliverable
   * d) Using Adobe AI tools for personal creative projects
3. Which limitation applies to both ChatGPT and Microsoft Copilot?
   * a) They cannot process visual information
   * b) They may produce inaccurate information
   * c) They are only available to management-level employees
   * d) They require specialized programming knowledge
4. When an AI system makes a recommendation for technical service scheduling, what is the appropriate action?
   * a) Implement the recommendation without changes
   * b) Reject the recommendation and use manual scheduling
   * c) Review the recommendation and adjust if necessary
   * d) Escalate all AI recommendations to management
5. If you notice that an AI system is consistently producing biased outputs, what should you do?
   * a) Ignore it as all AI systems have bias
   * b) Follow the escalation procedure to report the issue
   * c) Stop using all AI systems immediately
   * d) Correct the outputs yourself but continue using the system
6. Which of the following best describes Adobe Creative Cloud's AI capabilities at SGH?
   * a) Fully automated design that requires no human input
   * b) Tools that assist with creative tasks but require human direction and review
   * c) Systems that can only be used by professional designers
   * d) AI that can replace the need for creative professionals
7. Which of these is NOT a proper use of ChatGPT according to SGH's AI usage policy?
   * a) Brainstorming ideas for a project proposal
   * b) Drafting an initial response to a routine client inquiry
   * c) Sharing confidential client information to get better recommendations
   * d) Summarizing a lengthy technical document
8. Which principle should guide your use of AI systems at SGH?
   * a) Always prioritize AI recommendations over human judgment
   * b) Use AI only when absolutely necessary
   * c) Maintain appropriate human oversight and verification
   * d) Keep AI use confidential from clients and colleagues
9. What is the primary purpose of SGH's AI usage documentation requirements?
   * a) To track employee productivity with AI tools
   * b) To demonstrate compliance and maintain appropriate oversight
   * c) To limit the use of AI systems
   * d) To compare different AI systems' performance
10. Which business intelligence AI capability would be most useful for service optimization at SGH?
    * a) Generating creative marketing content
    * b) Predicting resource needs based on historical service patterns
    * c) Translating technical documents into multiple languages
    * d) Developing new software applications

### Module 3: AI Ethics and Responsible Use

1. Which of the following is an example of potential bias in an AI system?
   * a) The system requires internet access to function
   * b) The system generates different results for different ethnic groups despite similar circumstances
   * c) The system occasionally makes factual errors
   * d) The system requires human review of outputs
2. When an AI system provides information that seems plausible but you're unsure of its accuracy, what is the best course of action?
   * a) Accept the information if it seems reasonable
   * b) Verify the information with reliable independent sources
   * c) Ask the AI system if it's certain about the information
   * d) Ignore the information and rely only on your prior knowledge
3. Under GDPR, which of the following is required when using AI systems that process personal data?
   * a) Using all available personal data to ensure accuracy
   * b) Implementing appropriate data protection measures
   * c) Keeping personal data indefinitely for model improvement
   * d) Restricting AI use to management personnel only
4. When using AI to assist with customer service at SGH, what level of transparency is typically required?
   * a) No disclosure is necessary as long as the service is good
   * b) Detailed technical explanations of how the AI works
   * c) Appropriate disclosure of AI's role in service delivery
   * d) Only disclose AI use if something goes wrong
5. What is meant by "human-in-the-loop" in the context of AI oversight?
   * a) Humans should be replaced by AI systems in repetitive tasks
   * b) Humans make final decisions while AI provides recommendations
   * c) Humans should monitor AI but not intervene
   * d) AI should be designed to mimic human behavior perfectly
6. Which of the following is a key ethical principle for AI use at SGH?
   * a) Maximize efficiency by automating as many decisions as possible
   * b) Maintain appropriate transparency about AI use with stakeholders
   * c) Limit AI use to technical experts only
   * d) Always choose the most advanced AI solution available
7. What causes AI "hallucinations" or fabrications?
   * a) Hardware malfunctions in the computer system
   * b) Deliberate programming to create creative content
   * c) Statistical nature of AI and gaps in training data
   * d) User errors in system operation
8. Which approach to data minimization is most appropriate when using AI systems?
   * a) Collect as much data as possible to improve accuracy
   * b) Use only the data necessary to accomplish the specific purpose
   * c) Avoid using any personal data in AI systems
   * d) Let each department decide its own data collection standards
9. Which statement about the relationship between AI and human judgment is most accurate at SGH?
   * a) AI recommendations should always override human judgment
   * b) AI should be used only when human judgment is unavailable
   * c) AI should complement human judgment, not replace it
   * d) Human judgment is always more accurate than AI recommendations
10. What is an appropriate response if a client asks about SGH's use of AI in service delivery?
    * a) Deny using AI to avoid raising concerns
    * b) Provide honest, clear information about how AI is used
    * c) Change the subject to avoid the discussion
    * d) Exaggerate the capabilities of the AI systems

### Module 4: EU AI Act Essentials

1. Under the EU AI Act, which of the following best describes SGH's obligation regarding AI literacy?
   * a) Provide advanced technical training to all employees
   * b) Take measures to ensure, to the best extent, sufficient AI literacy for staff using or operating AI systems
   * c) Limit AI system access to employees with technical backgrounds
   * d) Hire external experts to handle all AI-related tasks
2. Which of the following would be classified as a prohibited practice under Article 5 of the EU AI Act?
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   * d) Upgrade the system to add more features
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   * c) Access restricted to senior management only
   * d) Operation only during business hours
5. According to SGH's incident reporting procedures, what should you do if you notice an AI system consistently producing results that appear biased?
   * a) Adjust your use of the system to work around the bias
   * b) Document the issue and report it through the established incident reporting process
   * c) Ask colleagues if they've noticed the same problem before reporting
   * d) Assume it's a temporary issue that will resolve itself
6. When did the AI literacy requirements of the EU AI Act become applicable?
   * a) August 1, 2024
   * b) February 2, 2025
   * c) August 2, 2025
   * d) August 2, 2026
7. Which of the following AI systems would most likely be classified as high-risk under the EU AI Act?
   * a) An AI chatbot that answers general customer inquiries
   * b) An AI system used to make employee hiring decisions
   * c) An AI tool that suggests document formatting in Word
   * d) An AI system that organizes meeting schedules
8. What is the maximum fine for violations related to prohibited AI practices under the EU AI Act?
   * a) €10 million or 2% of global annual turnover
   * b) €20 million or 4% of global annual turnover
   * c) €35 million or 7% of global annual turnover
   * d) €50 million or 10% of global annual turnover
9. Which of the following best describes the risk-based approach of the EU AI Act?
   * a) All AI systems must meet the same requirements regardless of use
   * b) Requirements vary based on the potential risk the AI system poses
   * c) Only AI systems used in healthcare are regulated
   * d) The regulation applies only to certain industries
10. Which of the following is NOT a key date in the EU AI Act implementation timeline?
    * a) February 2, 2025 for prohibitions and AI literacy requirements
    * b) August 2, 2025 for general-purpose AI model rules
    * c) January 1, 2025 for mandatory registration of all AI systems
    * d) August 2, 2026 for high-risk AI system requirements

## Answer Keys

### Module 1: Introduction to Artificial Intelligence

1. b) Systems designed to perform tasks that typically require human intelligence
2. b) The quality and representativeness of the training data
3. c) Understanding context like humans do
4. b) AI systems designed for specific tasks
5. c) Optimizing service scheduling and resource allocation
6. c) Machine learning systems learn from data rather than following explicit instructions
7. b) A system that can translate text from one language to another
8. b) A mathematical model inspired by the human brain's structure
9. b) AI systems can process large amounts of data but have limitations in understanding context
10. c) Optimizing service scheduling and resource allocation

### Module 2: AI Systems at SGH

1. c) Reviewing and verifying AI-generated content
2. c) Including AI-generated content in a client deliverable
3. b) They may produce inaccurate information
4. c) Review the recommendation and adjust if necessary
5. b) Follow the escalation procedure to report the issue
6. b) Tools that assist with creative tasks but require human direction and review
7. c) Sharing confidential client information to get better recommendations
8. c) Maintain appropriate human oversight and verification
9. b) To demonstrate compliance and maintain appropriate oversight
10. b) Predicting resource needs based on historical service patterns

### Module 3: AI Ethics and Responsible Use

1. b) The system generates different results for different ethnic groups despite similar circumstances
2. b) Verify the information with reliable independent sources
3. b) Implementing appropriate data protection measures
4. c) Appropriate disclosure of AI's role in service delivery
5. b) Humans make final decisions while AI provides recommendations
6. b) Maintain appropriate transparency about AI use with stakeholders
7. c) Statistical nature of AI and gaps in training data
8. b) Use only the data necessary to accomplish the specific purpose
9. c) AI should complement human judgment, not replace it
10. b) Provide honest, clear information about how AI is used

### Module 4: EU AI Act Essentials

1. b) Take measures to ensure, to the best extent, sufficient AI literacy for staff using or operating AI systems
2. b) Implementing an AI system that categorizes employees based on their emotional states
3. b) Report your concerns through the established AI governance process
4. b) Implementation of appropriate human oversight mechanisms
5. b) Document the issue and report it through the established incident reporting process
6. b) February 2, 2025
7. b) An AI system used to make employee hiring decisions
8. c) €35 million or 7% of global annual turnover
9. b) Requirements vary based on the potential risk the AI system poses
10. c) January 1, 2025 for mandatory registration of all AI systems