

CANADIAN FIRE ALARM TECHNOLOGY PROGRAM

CURRICULUM

5 MODULES, AS REQUIRED FOR REGISTRATION AS A FIRE ALARM TECHNICIAN

MODULE 1 | INTRODUCTION TO THE FIRE DETECTION & ALARM INDUSTRY

THIS COURSE IS DESIGNED TO PROVIDE THE STUDENT WITH A DETAILED DESCRIPTION OF THE FIRE ALARM INDUSTRY THAT DISCUSSES THE ESTABLISHMENT OF THE INDUSTRY FROM ITS GRASS ROOTS TO CURRENT DAY LEGALITIES ENFORCED BY VARIOUS FIRE MARSHAL OFFICES ACROSS CANADA. THIS INTRODUCTORY LEVEL COURSE TO THE FIRE ALARM INDUSTRY WILL COVER TOPICS THAT INCLUDE BUILDING CONSTRUCTION, THE APPLICATION OF CODES AND STANDARDS, FIRE SCIENCES, FIRE BEHAVIOUR AND PROVEN METHODOLOGIES OF FIRE HAZARD DETECTION. ALSO COVERED ARE THE THEORIES OF APPLICATION SURROUNDING INPUT, OUTPUT AND ANCILLARY DEVICES TO FIRE ALARM SYSTEMS. UPON SUCCESSFUL COMPLETION OF THIS COURSE STUDENTS WILL HAVE COMPLETED THE FIRST COURSE TOWARDS BECOMING A REGISTERED FIRE ALARM TECHNICIAN IN THE PROVINCE OF ONTARIO.

TEXTBOOK/MANUAL: CANADIAN FIRE ALARM ASSOCIATION: FIRE ALARM SYSTEMS, A REFERENCE GUIDE, 2010 EDITION. (CFAA, 2010)

MODULE 2 | VERBAL AND WRITTEN COMMUNICATION

THIS COURSE INTRODUCES THE STUDENT TO VARIOUS FORMS OF VERBAL AND WRITTEN BUSINESS COMMUNICATION INCLUDING LETTERS, MEMORANDA, SUMMARIES, INSTRUCTIONS AND VERBAL PRESENTATIONS. IT TEACHES PRACTICAL TECHNIQUES FOR PLANNING AND WRITING REPORTS IN AN EFFECTIVE, PROFESSIONAL MANNER. EDITING AND METHODS OF CHECKING SPELLING, GRAMMAR AND PUNCTUATION ARE INCORPORATED INTO THE COURSE. BY PERFORMING IN-CLASS ASSIGNMENTS THE STUDENT WILL LEARN TO PRESENT ORAL REPORTS PROFESSIONALLY AND TO WRITE EFFECTIVELY.

TEXTBOOK/MANUAL: NORTHEY, MARGOT AND MCKIBBIN, JOAN, IMPACT!: A GUIDE TO COMMUNICATION (PEARSON EDUCATION CANADA, 2012)

MODULE 3 | **BASIC ELECTRICITY**

KNOWLEDGE OF ELECTRICAL THEORY IS ESSENTIAL TO UNDERSTANDING THE OPERATIONAL DYNAMICS OF FIRE ALARM SYSTEMS TODAY. THIS COURSE IS DESIGNED TO PROVIDE THE STUDENT WITH BASIC ELECTRICAL THEORY FOR THE FIRE ALARM INDUSTRY. BASIC ELECTRICAL STRUCTURE WILL BE DISCUSSED COMPROMISING FROM THE MOLECULAR LEVEL OF ELECTRICAL DEVELOPMENT TO AC AND DC SINE WAVES, BATTERY DYNAMICS, CIRCUITRY, ELECTROMAGNETIC FIELDS, INDUCTANCE, ELECTRICAL SAFETY AND INTERPRETING WIRING SCHEMATICS. STUDENTS TAKING THIS COURSE WILL HAVE A STRONG GROUNDING IN BASIC ELECTRICAL THEORY FOR WIRING FIRE ALARM DEVICES AND COMPONENTS. UPON SUCCESSFUL COMPLETION OF THIS COURSE STUDENTS WILL HAVE COMPLETED THE THIRD COURSE TOWARDS BECOMING A REGISTERED FIRE ALARM TECHNICIAN IN THE PROVINCE OF ONTARIO.

TEXTBOOK/MANUAL: CANADIAN FIRE ALARM ASSOCIATION: BASIC ELECTRICAL THEORY FOR THE FIRE ALARM TECHNICIAN, 2003 EDITION. (CFAA, 2003)

MODULE 4 | **LIFE SAFETY SYSTEMS ELECTRONICS**

WITH MODERN DAY FIRE PROTECTION AND THE ADVANCEMENTS IN THE FIRE INDUSTRY, FIRE ALARM SYSTEMS HAVE EVOLVED FROM BEING A BASIC INPUT OUTPUT SYSTEM TO A MORE ADVANCED INTELLIGENT LIFE SAFETY SYSTEM THAT IS CAPABLE OF MAKING ACCURATE DECISIONS BASED ON INFORMATION THAT IS FED TO IT. THIS COURSE WILL COVER THE CRITICAL COMPONENTS THAT CREATE BOTH INTELLIGENT AND NON-INTELLIGENT FIRE ALARM SYSTEMS. THE COURSE WILL COVER ELECTRONIC DEVICES, THEIR MECHANICS, CONSTRUCTION, AND OPERATION AND INFLUENCE OVER VOLTAGE, CURRENT AND RESISTANCE. THE COURSE WILL ALSO COVER PROGRAMMABLE LOGIC USED BY FIRE ALARM SYSTEMS TO CONTROL BUILDING ANCILLARIES AND VOICE COMMUNICATION. UPON SUCCESSFUL COMPLETION OF THIS COURSE STUDENTS WILL HAVE COMPLETED THE FOURTH EDUCATIONAL COURSE REQUIRED FOR BEING A REGISTERED FIRE ALARM TECHNICIAN WITH THE CANADIAN FIRE ALARM ASSOCIATION.

TEXTBOOK/MANUAL: CANADIAN FIRE ALARM ASSOCIATION: LIFE SAFETY SYSTEM ELECTRONICS. (CFAA, 2012)

MODULE 5 | FIRE ALARM SYSTEMS

THIS COURSE PROVIDES AN IN DEPTH OVERVIEW OF FIRE ALARM SYSTEMS, THEIR DEVICES, COMPONENTS, OPERATIONAL AND INSTALLATION METHODOLOGIES. ALSO COVERED ARE THE NATIONAL AND PROVINCIAL CODES AND STANDARDS THAT GOVERN THE FIRE ALARM INDUSTRY. CONTENT COVERED IN THIS COURSE BUILDS UPON PRINCIPLES COVERED IN; THE INTRODUCTION TO THE FIRE ALARM INDUSTRY, BASIC ELECTRICITY AND LIFE SAFETY SYSTEM ELECTRONICS. UPON SUCCESSFUL COMPLETION OF THIS COURSE STUDENTS WILL HAVE COMPLETED THE FINAL EDUCATIONAL COURSE REQUIRED IN BECOMING A REGISTERED FIRE ALARM TECHNICIAN IN THE PROVINCE OF ONTARIO.

TEXTBOOK/MANUAL: CANADIAN FIRE ALARM ASSOCIATION: FIRE ALARM SYSTEMS, A REFERENCE GUIDE, 2010 EDITION. (CFAA, 2010)