

San Francisco Police Department Forensic Services Division - Criminalistics Laboratory Tel: 415.671.3200 / Fax: 415.671.3290 **Curriculum Vitae**

GERALD ANDREW SMITH

 $Criminalist \ III-Supervisor$

CURRENT AREA OF ASSIGNMENT

Firearm and Toolmark Unit

EDUCATION

M.S. Forensic Science, University of New Haven, 1999 B.A. Criminal Justice, University of Southern Mississippi, 1997

RELATED EXPERIENCE

October 2014 – Present	Criminalist III Firearm and Toolmark Unit City and County of San Francisco Crime Laboratory
August 2004 – October 2014	Criminalist II Firearm and Toolmark Unit City and County of San Francisco Crime Laboratory
February 2004 – August 2004	Criminalist II Firearm and Toolmark Unit San Mateo County Sheriff's Forensic Laboratory
October 1999 – January 2004	Crime Laboratory Analyst Firearm and Toolmark Unit Florida Department of Law Enforcement Orlando, Florida
August 2005 – Present	Associate Faculty College of Security and Criminal Justice University of Phoenix
April 2001 – April 2015	Adjunct Faculty Criminal Justice / Criminal Investigations Corinthian Colleges, Inc.
July 1999 – October 1999	Forensic Technologist Trace Evidence – Gunshot Residue Unit Florida Department of Law Enforcement Orlando, Florida

July 1998 – January 1999

Intern Firearms Unit Bridgeport Police Department Bridgeport, Connecticut

TESTIMONY

Qualified as an expert witness to testify in the field(s) of: Firearm Identification / Toolmark Identification / Distance Determination / Gunshot Residue Analysis

CERTIFICATIONS

<u>Tool Mark Evidence Examination and Identification</u> – administered through the Association of Firearm and Tool Mark Examiners <u>Firearms Evidence Examination and Identification</u> – administered through the Association of Firearm and Tool Mark Examiners <u>Gunshot Residue Evidence Examination and Identification</u> – administered through the Association of Firearm and Tool Mark Examiners

PROFESSIONAL AFFILIATIONS

Association of Firearms and Toolmark Examiners—Distinguished Member – Past President Organization of Scientific Area Committees – Past Chair – Firearms/Toolmark Subcommittee Organization of Scientific Area Committees – AFTE Representative to the Forensic Science Standards – Current Chair

SPECIALIZED TRAINING¹

Title	Material Covered	Completion Date	Instructor Name & Qualifications
3D Virtual Comparison Microscopy and Correlation Algorithm Hands-On Practicum with Cadre Forensics	Hands on practice utilizing the Cadre comparison microscopy tools and functions	5/26/2024	Ryan Lilien – Cadre Forensics
2022 Firearm and Toolmarks Policy and Practice Forum – 4 day conference (webinar)	Legal Issues, Emerging Technologies, Research Methods, and Intelligence	1/11/2022 – 1/14/2022	NIJ / RTI
Exploration of Breech Face Subclass Characteristics	Subclass characteristics	12/14/2021	Veronica Franklin
Machining for the Firearm Examiner	Machining Processes	3/11/2020	Chris Monturo, Firearms Examiner, Precision Forensic Testing
Auditing Your Laboratory to ISO / IEC 17025: 2017	Auditing to ISO / IEC 17025: 2017	3/5/2020	Soraya McClung, Technical Training Specialist, A2LA

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Understanding ISO / IEC 17025: 2017 for Testing and Calibration Laboratories	Understanding ISO / IEC 17025: 2017	3/3/2020	Soraya McClung, Technical Training Specialist, A2LA
An Introduction to Statistical Thinking for Forensic Practitioners	Statistics	1/28/2020	Hal S. Stern, Ph. D.; University of California, Irvine
Testimony Related Issues – Preparation for Daubert and Evidentiary Hearings in Firearm and Toolmark Identification	1.5 hr webinar on issues surrounding evidentiary hearing and Daubert criteria in firearms examination	10/10/19	Ron Nichols – Firearms Examiners & Author
Subclass Characteristics – Review of the Literature Part 2	1.5 hr webinar on review of the literature that discusses subclass characteristics	10/3/19	Ron Nichols – Firearms Examiners & Author
Subclass Characteristics – Review of the Literature Part 1	1.5 hr webinar on review of the literature that discusses subclass characteristics	9/26/19	Ron Nichols – Firearms Examiners & Author
Subclass Characteristics – Machining Fundamentals	1.5 hr webinar on machining techniques and their potential impact on subclass characteristics in firearms	8/15/19	Ron Nichols – Firearms Examiners & Author
Subclass Characteristics – Definition, Origin and Recognition	1.5 hr webinar on the origin of subclass characteristics and its history in firearms examination	8/8/19	Ron Nichols – Firearms Examiners & Author
Consecutive Matching Striations – Theory and Application	1.5 hr webinar on the concept of CMS and its application in firearms examination	8/1/19	Ron Nichols – Firearms Examiners & Author
Franklin Covey – The 5 Choices to Extraordinary Productivity	2 day workshop on ways to be more productive and manage time in relation to work and personal life	7/18/19	Denise Van Alstine – Trainer for SF DHR
Validation Studies – A Review of the Literature	1.5 hr webinar on the validation studies conducted in the field of firearms examination	5/22/19	Ron Nichols – Firearms Examiners & Author
Computer Based Studies – Differentiating Toolmarks Made by Different Tools	1.5 hr webinar on the studies being performed using objective computer based methods in firearms examination	5/16/19	Ron Nichols – Firearms Examiners & Author
AFTE Theory of Identification – Hypothesis Testing and Research Design	1.5 hr webinar on the research studies conducted related to validating the AFTE Theory of Identification	5/9/19	Ron Nichols – Firearms Examiners & Author
Objectivity, Subjectivity, and Bias in Firearm and Toolmark Identification	1.5 hr webinar on understanding the role of objectivity, subjectivity, and bias in firearms examination	1/15/19	Ron Nichols – Firearms Examiners & Author
Remington Firearms Factory Tour – Huntsville, AL	Tour of the facilities and manufacturing operation of Remington Firearms (pistol and shotguns)	8/30/18	Matthew Trask – Plant Manager
Winchester Ammunition Factory Tour – Oxford, MS	Tour of the facilities and manufacturing operations of Winchester Ammunition (pistol, rifle, military)	8/29/18	Ed Harris – Plant Manager

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Remington Ammunition Factory Tour – Loanoke, AR	Tour of the facilities and manufacturing operations of Remington Ammunition (pistol, rifle, and shotgun)	8/28/18	Kris Karson – Plant Manager
SIG Ammunition Factory Tour – Jacksonville, AR	Tour of the facilities and manufacturing operations of SIG Ammo	8/28/18	Brad Criner – Plant Manager
ANAB ISO/IEC 17025:2017 and AR3125 Assessor Training	Web based course in understanding the new requirements as laid out in ISO/IEC17025 accreditation standard	7/2/18	Emma Dutton – Trainer for ANAB
AccuTrans – Lifting from Difficult Surfaces and Tool Marks	4 hr workshop on the utilization of forensic sil and its application to examining firearms and tool marks	6/3/18	JoAnn DiPrete – Instructor for AccuTrans
Bleeding Control Basic v. 1.0 Course	Training in how to stop bleeding from traumatic events	5/29/18	Jennifer Treff & Christopher Blair– Trainers SF Fire Department
ANAB Delta to AR 3028 - Assessors	Web based course in understanding the ANAB accrediting document AR3028	3/20/18	Emma Dutton – Trainer for ANAB
ANAB Forensic: Auditing Principles	Web based course in understanding the auditing principles of ANAB	3/6/18	Emma Dutton – Trainer for ANAB
Measurement Traceability – Assessor Training	Web based course in understanding how to assess measurement traceability during a lab assessment	3/7/18	Emma Dutton – Trainer for ANAB
Creating an Inclusive Environment: Introduction to Managing Implicit Bias	2 day workshop in managing bias and not letting it impact your interactions with employees	2/8/18	Ryan Kimura – Training Officer for SF DHR
Preventing Workplace Harassment – San Francisco Supervisors	Web based training on how to create a work environment which prevents harassment of any kind	12/11/17	CCSF
Forensic Statistics	4 day workshop on the application of statistics to forensic science – basics of statistics, likelihood ratios, principal component analysis	11/16/17	Nick Petraco, PhD – Professor andResearch Scientist at John Jay College
Expert Witness Testimony Techniques for Firearms Examiners	8 hr workshop in techniques that can be employed when testifying to Firearm and Toolmark related analysis	5/29/16	Ron Smith – Latent Print Examiner, Owner Ron Smith & Associates
24-Plus for Supervisors	28 hour course in performance management of employees and understanding CCSF policies and how to better supervise employees	12/1/15	Denise Van Alstine – Trainer for SF DHR
Introduction to ISO/IEC 17025:2005	8 hr course introducing the concepts and standards as defined by the ISO/IEC 17025:2005 document	11/2/15	Anja Einseln – Corporate Trainer for ASCLD/LAB
ASCLD/LAB International Assessor Training Course	5 day workshop to become a Laboratory Assessor and understanding the ASCLD/LAB and ISO/IEC standards in relation to assessments	11/6/15	Anja Einseln – Corporate Trainer for ASCLD/LAB

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IBIS Trax-HD3D BrassTrax 3.0 Learning Module	Webinar in understanding the new features and techniques to utilize the IBIS Trax-HD3D and BrassTrax system	10/7/15	Celine Desmarais – Training Manager for Forensic Technology
Cognitive Factors in Forensic Decision Making	2 day workshop in understanding the impact of bias as it relates to forensic examinations	9/10/15	Itiel Dror, PhD – Researcher Cognitive Consultants
Measurement Confidence for the Forensic Laboratory – Level 200	2 day workshop on understanding and being able to perform measurement uncertainty budgets for barrel and overall length of firearms	8/19/14	Laurel Farrell – Instructor for ASCLD/LAB International
3D Technology	4 hr workshop understanding the application of 3D technology in the Laboratory and its application to firearms examination	5/11/14	Erich Smith – FBI Firearms Examiner & Ryan Lilien, MD/PhD – Researcher at Cadre Forensics
Measurement Confidence for the Forensic Laboratory – Level 100C	8 hr web based training for measurement uncertainty and its role in the forensic laboratory	1/30/14	Laurel Farrell – Instructor for ASCLD/LAB International
Measurement Confidence for the Forensic Laboratory – Level 100B	8 hr web based training for measurement assurance and its role in the forensic laboratory	1/29/14	Laurel Farrell– Instructor for ASCL/LAB International
Measurement Confidence for the Forensic Laboratory – Level 100A	8 hr web based training for measurement traceability and its role in the forensic laboratory	1/28/14	Laurel Farrell – Instructor for ASCLD/LAB International
Microscopy Database	2 hr workshop for the introduction to the use of confocal microscope images to build a database and use of Image J	6/25/13	David Howitt, PhD – Research at UC Davis
Science Behind Firearm Individualization	4 hour workshop on understanding and articulating the science behind firearm and toolmark examination	6/28/13	Srini Rathinam – Firearms Examinerfor Los Angeles PD
Hi-Point Firearms Armorers Course	4 hr course in learning how to assemble and disassemble Hi-Point firearms and certify as an armorer	6/24/12	Tom Deeb – Owner, Hi-Point Firearms
Tour of Barrett Firearms – Murfreesboro, TN	Tour of the manufacturing facilities at Barrett firearms to understand the processes and machining in making these specific firearms	11/2011	Plant employees provided the tour – not available exact name(s)
Tour of STI International – Georgetown, TX	Tour of the manufacturing facilities at STI International firearms to understand the processes and machining in making these specific firearms	4/2011	Plant employees provided the tour – not available exact name(s)
Tour of Hi-Point Firearms and Ithaca Gun Company – Mansfield, OH	Tour of the manufacturing facilities at both Hi-Point Firearms and Ithaca Gun Company firearms to understand the processes and machining in making these specific firearms	11/2010	Tom Deeb, Owner of Hi-Point Firearms

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Factory Tour of Klein Tools and DSA Inc. – Lincolnshire, IL	Tour of the manufacturing facilities at Klein Tools to understand the processes and machining in making these specific tools (screwdrivers, pliers, bolt cutters)	11/2009	Plant employees provided the tour – not available exact name(s)
Ruger Armorers Course – P Series Pistols	8 hr workshop on the process of assembly and disassembly of the Ruger P-Series pistols	5/31/09	Bob Wood – Armorer Instructor for Ruger Firearms
Factory Tour of Rainier Bullets and Olympic Firearms – Seattle, WA	Tour of the manufacturing facilities of Rainier bullets to understand the manufacturing of bullets used for reloading and of Olympic Firearms to understand the manufacturing process of AR variant rifles	4/2009	Plant employees provided the tour – not available exact name(s)
Smith and Wesson M&P Pistol Armorer Course	1 day course to learn the assembly and disassembly of the S&W M&P pistol and certify as an armorer	6/28/06	Michael Kolozuevy– Instructor & Armorer for Smith and Wesson
Toolmark Identification and Comparison	40 hr course in understanding the manufacturing of tools (non-firearm tools) and the potential for subclass influence in manufacturing	1/27/06	Jerry Miller – Firearms Examiner for Bureauof Alcohol, Tobacco, Firearms & Explosives
Crime Scene Reconstruction of Shooting Incidents	40 hr course in understanding shooting reconstruction and trajectory in shooting analysis for reconstruction of crime scene events	11/18/05	N. Leroy Parker – FDLE certified crime scene instructor
Kahr Arms Basic Armorer's Course – Pistols	1 day course to learn the assembly and disassembly of Kahr pistols and certify as an armorer	6/20/05	Frank Harris – Instructor / Armorer for Kahr Arms
Shooting Incident Reconstruction	40 hr course in the application of reconstruction of shooting crime scene events	11/19/04	Ed Hueske – Director, Forensic Training & Consulting
Criteria for the Identification of Toolmarks	12 hr workshop in the identification of toolmarks (firearm and non-firearm toolmarks) and the history of the discipline as well as the application of Consecutive Matching Striations (CMS)	5/23/04 & 5/28/04	John Murdock – Firearms Examiners BATFE & Bruce Moran – Firearms Examiners Sacramento County DA's Lab
Familiarization of Variations in Breech Face Marks and Firing Pin Marks from the Sam Firearm	4 hr workshop to understand the variances that can occur due to different ammunition even if in same firearm	5/28/04	Beta Tam – Firearms Examiner Los Angeles Police Department
Firearm Safety, Recognition and Technology	1 day workshop on firearms safety	10/24/03	Ralph Ostrowski – ATFE Special Agentin Charge Tampa Field Division
Glock Armorers Course	1 day course to learn the assembly and disassembly for Glock pistols and certify as an armorer	2/15/03	Bryan James – Instructor & Armorer for Glock

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Toolmark Examination Training Program	8 month training program in the examination and comparison of tools and toolmarks (non-firearms)	10/3/02	Matt Conway – Training Officer& Crime Laboratory Analyst at FDLE
Heckler and Koch Model USP Pistol Armorer Course	1 day course to learn the assembly and disassembly of the HK USP pistoland certify as an armorer	5/31/02	Bob (last name unavailable) – Instructor and Armorer for HK
Weapons of Mass Destruction	4 hr workshop on recognizing and understanding potential weapons of mass destruction	2/26/02	Instructor information no available – course at FDLE Orlando
IBIS v. 3.3 (Heritage System)	Updated software course in the capture and correlation of bullets and cartridge cases into the IBIS system	10/2001	Patrick Moran– Trainer forForensic Technology Inc.
NIBIN Training	5 day course to become an authorized user of the IBIS / NIBIN system to acquire and correlate bullets and cartridge cases	7/13/01	Ana (last name unavailable) – trainer for Forensic Technology Inc.
Smith and Wesson Model SW99 Armorers Course	1 day course to learn the assembly and disassembly of a specific S&W model firearm and certify as an armorer	5/24/01	S&W Armorer/Instructor – exact name unavailable
Firearms Examination Training Program	10 month training program (continuation of initial joint training) in the examination and analysis of firearms related evidence	3/19/01	Matt Conway – Training Officer& Crime Laboratory Analyst at FDLE
Gunshot Residue Analysis Training Program	8 month training program in the examination and analysis of primer residues utilizing SEM / EDS instrumentation	3/19/01	Deb Lightfoot – Senior Crime Laboratory Analyst at FDLE Orlando
Serial Number Restoration	3 day course in processing and restoring obliterated serial numbers on firearms	8/24/00	Walt Dandridge & Joe Mason – Firearms Examiner ATFE
Gunpowder and Primer Residues School	5 day course in processing and examining distance determination ranges and firearm discharge residues	7/14/00	Carlo Rosati – Firearms Examiner, Federal Bureau of Investigation
Courtroom Demeanor	4 hr workshop on how to present yourself in court as an expert witness	6/20/00	Steve Brady – FDLE Regional Legal Advisor
The Florida-Georgia Forensic Firearms Training Program	6 month (1416 hr) joint initial training program with FDLE and GBI for firearms examination in Tampa, FL	5/25/00	Terry LaVoy – Firearms Examiner (retired) FDLE
Firearms Safety Course	1 day course in how to properly handle and fire various types of firearms	12/15/99	James Brock – Director Criminal Justice Institute at St. Petersburg Junior College

¹ Entry in the table above indicates that the training listed was satisfactorily completed.

TRAINING CONFERENCES

Association of Firearm and Tool Mark Examiners 54th Annual Training Seminar Anchorage, AK, May 2024

Association of Firearm and Tool Mark Examiners 53rd Annual Training Seminar Austin, TX, May 2023

Association of Firearm and Tool Mark Examiners 52nd Annual Training Seminar Atlanta, GA, May 2022

FBI Eastern Regional Training Seminar Quantico, VA, November 2019

Association of Firearm and Tool Mark Examiners 50th Annual Training Seminar Nashville, TN, May 2019

Association of Firearm and Tool Mark Examiners 49th Annual Training Seminar Charleston, WV, May 2018

Impression Pattern Evidence Symposium Hosted by: National Institute of Justice – Gaithersburg, MD (webinar), January 2018

Association of Firearm and Tool Mark Examiners 48th Annual Training Seminar Denver, CO, May 2017

Association of Firearm and Tool Mark Examiners 47th Annual Training Seminar New Orleans, LA, May 2016

Association of Firearm and Tool Mark Examiners 46th Annual Training Seminar Dallas, TX, May 2015

Association of Firearm and Tool Mark Examiners 45th Annual Training Seminar Seattle, WA, May 2014

Shooting, Hunting, Outdoor, Trade Show (SHOT Show) Las Vegas, NV, January 2014

Association of Firearm and Tool Mark Examiners 44thAnnual Training Seminar Albuquerque, NM, June 2013

Impression Pattern Evidence Symposium Hosted by: National Institute of Justice – Clearwater Beach, FL, August 2012

Association of Firearm and Tool Mark Examiners 43rd Annual Training Seminar Buffalo, NY, June 2012

Shooting, Hunting, Outdoor, Trade Show (SHOT Show) Las Vegas, NV, January 2012

Association of Firearm and Tool Mark Examiners 42nd Annual Training Seminar Chicago, IL, May 2011

Impression Pattern Evidence Symposium Hosted by: National Institute of Justice – Clearwater Beach, FL, August 2010

Association of Firearm and Tool Mark Examiners 41st Annual Training Seminar Henderson, NV, May 2010

Association of Firearm and Tool Mark Examiners 40th Annual Training Seminar Miami, FL, June 2009

Association of Firearm and Tool Mark Examiners 39th Annual Training Seminar Honolulu, HI, May 2008

Association of Firearm and Tool Mark Examiners 38th Annual Training Seminar San Francisco, CA, May 2007

Association of Firearm and Tool Mark Examiners 37th Annual Training Seminar Springfield, MA, June 2006

Association of Firearm and Tool Mark Examiners 36th Annual Training Seminar Indianapolis, IN. June 2005

Association of Firearm and Tool Mark Examiners 35th Annual Training Seminar Vancouver, BC, Canada, May 2004

Association of Firearm and Tool Mark Examiners 33rd Annual Training Seminar San Antonio, TX, May 2002

PUBLICATIONS AND PRESENTATIONS

Presented "Contemporary Issues in Firearms Identification" -2 - 16 hour workshops for the Metropolitan Police Forensics Laboratory, London, England – March 2023

Presented "Contemporary Issues in Firearms Identification" – 8 hour workshop at the 50th Annual AFTE Training Seminar, Nashville, TN – May 2019

Presented "Contemporary Issues in Firearms Identification" – 8 hour workshop at the 47th Annual AFTE Training Seminar, Denver, CO – May 2017

Presented "Contemporary Issues in Firearms Identification" & Mini-Moot Court Processes for the National Firearms Examiner Academy – BATFE – Maryland – May 2017

Smith, T., Smith, G. A., Snipes, J. "Validation Study of Bullets and Cartridge Case Comparisons Using Samples Representative of Casework," Journal of Forensic Science, Vol. 61, Issue 4, July 2016, pp 939-946.

Presented "40 Hour Workshop on the Evaluation, Assessment and Documentation of Subclass Characteristics on Tools and Tool Marks for the Firearms Examiner" for the Spanish National Police – Madrid, Spain – April 2016

Presented "Contemporary Issues in Firearms Identification" – 8 hour workshop at the 46th Annual AFTE Training Seminar, Dallas, TX – May 2014

Presented "Contemporary Issues in Firearms Identification" – 8 hour workshop at the 45th Annual AFTE Training Seminar, Seattle, WA – May 2014

Presented "40 Hour Workshop on the Evaluation, Assessment and Documentation of Subclass Characteristics on Tools and Tool Marks for the Firearms Examiner" for the Guardia Civil Madrid, Spain – October 2013

Presented "Contemporary Issues in Firearms Identification" & Mini-Moot Court Processes for the National Firearms Examiner Academy – BATFE – Maryland – May 2013

Presented "The Courts and Their View on Firearms Identification Evidence" – Workshop Impression Pattern Evidence Symposium – Clearwater Beach, Florida – August 2012

Presented "Contemporary Issues in Firearms Identification" – 8 hour workshop at the 43rd Annual AFTE Training Seminar, Buffalo, NY – June 2012

Presented "Contemporary Issues in Firearms Identification" & Mini-Moot Court Processes for the National Firearms Examiner Academy – BATFE – Maryland – May 2012

Presented "Contemporary Issues in Firearms Identification" – 8 hour workshop at the 42nd Annual AFTE Training Seminar, Chicago, IL – June 2011

Presented "Contemporary Issues in Firearms Identification" & Mini-Moot Court Processes for the National Firearms Examiner Academy – BATFE – Maryland – May 2010 & 2011

Presented "Contemporary Issues in Firearms Identification" – 2 four hour workshop at the 41st Annual AFTE Training Seminar, Henderson, NV – May 2010

Presented "Firearms Identification – Under the Gun – Review and Response to Recent Criticisms" California Association of Criminalists, San Jose, California – October 2009

Presented "ARK – Admissibility Resource Kit: Overview and Updates" 40th Annual Training Seminar of the Association of Firearm and Tool Mark Examiners, Miami, Florida – June 2009

Presented "Contemporary Issues in Firearms Identification" & Mini-Moot Court Processes for the National Firearms Examiner Academy – BATFE – Maryland – May 2009

Presented "Firearms Identification 101: The Basics of the Forensic Science" – The State Bar of California: Forensic Science for Trial Attorneys – San Francisco – May 2009

Presented "A Daubert Hearing in San Francisco – Preparation for and Impact of as it Relates to the Firearm and Tool Mark Community" – Boston Police Department, MA – August 2007

Presented "A Daubert Hearing in San Francisco – How it All Comes Together," 38th Annual Training Seminar of the Association of Firearm and Tool Mark Examiners, San Francisco, CA – May 2007

Presented training seminar on Firearms Identification: "The Evidence and What It Means" to the Territorial Public Defenders Office of the U.S. Virgin Islands – August 2002

Presented paper "A Rifled .32 Auto Cartridge Identified to a .380 Auto Pistol", 33rd Annual Training Seminar of the Association of Firearm and Tool Mark Examiners, San Antonio, TX – May 2002

"A Rifled .32 Auto Cartridge Identified to a .380 Auto Pistol", <u>Association of Firearm and Toolmark</u> <u>Examiners Journal</u>, Volume 34 Number 1, Winter 2002

"Florida-Georgia Firearms Examiner Training Class: An Overview", <u>Association of Firearm and</u> <u>Toolmark Examiners Journal</u>, Spring 2001

Last updated: 4/10/2025