

80 Hour Advanced Fabrics Bloodstain Pattern Analysis Training Course:

*Focussing on Interpreting Bloodstains
and Bloodstain Patterns on Clothing*



**California Forensic Science Institute
Hertzberg-Davis Forensic Science Center
California State University, Los Angeles
1800 Paseo Rancho Castilla
Los Angeles, CA 90032
October 23rd to 27th, 2017**

Course Instructors:
Dr Mark Reynolds
Mr Edmund (Ted) Silenieks

Introduction

This course is designed primarily for practitioners who routinely examine blood stained clothing and other textiles and are required to assess, interpret and report on bloodstain patterns as part of those examinations. The course is delivered through a combination of “face to face” instruction and self-directed learning. A minimum 80 hours of structured learning activities is required, inclusive of a 40 hour “face to face” residential component. The course will review the underpinning principles of BPA, and apply these principles to the analysis and interpretation of bloodstains on clothing and other textiles.

When examining clothing, the practitioner must be mindful of influences such as the fibre type, texture, treatments, all of which may affect the final appearance of bloodstains. The primary focus of the course is to develop those skills required for the examination of bloodstain patterns found on clothing items, including the use of microscopy to discriminate between spatter and transfer bloodstains.

Course Content

Prior to attending the 40 hour residential, participants will be expected to complete at least 20 hours of preparatory work including selected readings, a short 1500 word written assignment and prepare and submit a mock report detailing a case involving bloodstain pattern analysis, preferably involving blood stained clothing. Participants will be required to present oral and demonstrable evidence based on this report in a moot court situation and will receive feedback on their BPA knowledge and evidence presentation skills.

The 40 hour residential has a practical hands-on emphasis. The practical component of the course will be supplemented with lectures and class discussions which will introduce the participants to principles of fluid mechanics and assist participants gain higher level interpretative pattern recognition skills. Participants will work in small groups to complete a set of experiments, review and analyse experimental data and present findings to the class describing their results. Participants will be encouraged to draw connections between the dynamics of pattern formation and the features of the resultant static bloodstain pattern.

Following the 40 hour “face to face” residential, participants will be required to complete a report summarising their findings related to the examination of blood stained clothing during practical exercises at the residential. The report must be submitted within eight weeks of completing the residential.

Equipment and Stationery

Participants will be provided with course manuals which will have space to record notes, measurements and observations.

Participants are required to bring a camera to record experimental findings. All other consumables required for the course, including personal protective equipment, will be provided where required.

Pre-Course Assignments

1. Readings.

The following are the suggested pre-course readings for the course:

- Bloodstain Pattern Analysis with an Introduction to Crime Scene Reconstruction, Third Edition (2008), Bevel and Gardner, CRC Press Boca Rotan FL (**Chapter 11**);
- Principles of Bloodstain Pattern Analysis – Theory and Practice, (2005) James *et al*: CRC Press Boca Rotan FL (**pp 283 - 313 inclusive**);
- Scientific Protocols for Forensic Examination of Clothing, (2011) Taupin JM and Cwiklik C, CRC Press Boca Rotan FL, (**Chapters 3 & 5**);
- Forensic Examination of Fibres, Second Edition (1999), Robertson J, Grieve M. CRC Press Boca Rotan FL, (**Chapters 1 & 2**),
- Karger *et al*: Experimental Bloodstains on Fabric from Contact and from Drops. Int J Legal Med 111: 17-21 (1998);
- White: Bloodstain Patterns on Fabrics: The Effect of Drop Volume, Dropping Height and Impact Angle. Can Soc Forens Sci J Vol 19 No 1 (1986);

- Slemco, J: Bloodstain on Fabrics – The Effects of Droplet Velocity and Fabric Composition. IABPA News 19(4): 4-11 (2003);
 - de Castro, T., Nickson, T., Carr, D. and Knock C. Interpreting the formation of bloodstains on selected apparel fabrics. Int J Legal Med (2013) 127:251–258;
 - Holbrook, M. Evaluation of Blood Deposition on Fabric: Distinguishing Spatter and Transfer Stains. Journal of Bloodstain Pattern Analysis, Vol 26, No.1, March 2010;
 - Zajac, R., Osborne, N., Singley L., and Taylor, M. Contextual Bias: What Bloodstain Pattern Analysts Need to Know. Journal of Bloodstain Pattern Analysis, Vol. 31 No. 2, September 2015;
 - Attinger, D., Moore, C., Donaldson, A., Jafari, A., & Stone, H. A. (2013). Fluid dynamics topics in bloodstain pattern analysis: comparative review and research opportunities. Forensic Science International, 231(1-3), 375-396.
2. **Written Assignment.**
All participants are required to submit a short 1500 word essay on a topic relating to BPA. Specific topics are allocated to participants once enrolled in the course.
3. **Mock Court Report / Moot Court.**
 Prior to attending the course, participants are required to submit an actual case BPA report (de-identified if necessary), preferably including the bloodstain pattern analysis of at least one item of bloodstained clothing. Where practical, an accompanying case scenario should also be included. Participants will be required to present evidence in a moot court based on this case report.
- It is strongly urged that if possible the case report be one personally compiled by the participant and not the work of another.**
- The mock report should be from an old, finalised case; one that is no longer active and is no longer required for court purposes.**

Course Assessment

Participants will be assessed and evaluated with three separate examinations as follows:

1. **Written Assignment (competency based, i.e. pass / fail):** Participants will be assessed on the ability to write concisely and recognise key issues relating to their topic. The assignment should be scientific in its format and participants must quote references accessed.
2. **Written Exam (75% pass mark):** 90 minute assessment covering basic BPA theory, bloodstain formation, fibre and fabric characteristics and the interpretation of bloodstain patterns on fabrics.
3. **Practical Assignment (competency based, i.e. pass / fail):** Assessment requiring participants to examine and interpret bloodstains and bloodstain patterns on clothing completed during the residential. Participants will be required to submit their findings in the form of a court report within **8 weeks** of completing the 40 hour face to face component.

Failure in two assessments will deem the participant not competent and subsequently fail the course overall. Failure in any one assessment only will require a re-sit or resubmission, a second failure in that assessment will deem the participant not competent and subsequently fail the course overall.

Penalties will be incurred for failure to meet the practical assignment deadline. Where an extension to the assignment deadline is required^[1], please contact course instructor Dr. Mark REYNOLDS prior to the date of submission.

¹ Late returns for the pre course assignment will incur a 5% penalty / per day up to the period of 7 days late after which the assignment will automatically fail.

Upon successful completion of the course assessment requirements, course certificates will be issued to participants.

Course Instructors:

- **Dr Mark REYNOLDS APM**

Forensic Science Consultant and Manager, Quality Assurance, Forensic Divisional Office - Western Australia Police.

With more than 28 years of law enforcement experience, Dr Reynolds was a former sworn officer with the Western Australia Police and now currently serves in an unsworn capacity for that agency as a Forensic Science Consultant and Manager, Quality Assurance. As the principal analyst or peer reviewing officer, he has been involved in more than 110 cases that have required the examination, interpretation and reporting of bloodstains or bloodstain patterns. Dr Reynolds has undertaken training, delivered training or provided casework support in the USA, Canada, Brunei, the Netherlands, South Africa, Italy, New Zealand, Singapore and all states of Australia. He was the inaugural Vice President for the Oceanic – Asean Region of the IABPA and a former subcommittee chair of the Scientific Working Group on Bloodstain Pattern Analysis (SWGSTAIN). Dr Reynolds is recognised as a world leader in the analysis of bloodstains on clothing, and has conducted and supervised research leading to an understanding of the nuances of interpreting bloodstain patterns on clothing.

- **Edmund (Ted) SILENIEKS**

Bachelor of Applied Sc (Forensic Investigation), Coordinator - Evidence Recovery, Biology Section, Forensic Science SA - South Australia.

Ted Silenieks has more than 30 years experience working at the Forensic Science SA in Adelaide, South Australia where he currently serves as the Biology Evidence Recovery Coordinator. He is widely regarded as one of Australia's leading evidence recovery experts. Mr Silenieks has coordinated and supervised many research and development projects, resulting in over forty principal or co-authored presentations at national and international Forensic Symposiums. He became actively involved in BPA in 2004, is a member of the Australian Bloodstain Pattern Analysis Scientific Working Group, is the immediate past Vice President for the Oceanic – Asean Region of the IABPA and a current affiliate member of the OSAC BPA Subcommittee. In conjunction with Dr Mark Reynolds, Mr Silenieks developed the 80 Hour Advanced Fabrics BPA training course, which has been successfully delivered in Australia, the Netherlands, Italy, South Africa, USA, Canada and Singapore. This course is regarded by a number of international law enforcement agencies as essential training for those examining and interpreting bloodstains on clothing.

Meals and Accommodation

The cost of accommodation, meals and incidentals will be the responsibility of the participant. Contact the course coordinator or instructors for information regarding recommended hotels.

General Information:

The 40 hour residential component of the course will be held October 23rd to 27th, 2017.

The course hours are Monday through Friday, 8:30 a.m. – 5:00 p.m. (Note, assessments will be conducted on Friday, and the 5pm finish time is not flexible.)

Each participant is expected to bring at least two sets of old (unwanted) clothing they can wear and create bloodstain patterns on them. (A set of clothing consists of long pants and a long sleeved shirt or similar upper garment, and if possible a pair of shoes)

Each participant is responsible for making his or her own hotel reservation.

Upon receipt of your registration and payment you will receive a confirmation e-mail including a list of items to bring to the course. In the event of insufficient registrations, this course will be cancelled.

Class Size: The class size is limited to a maximum of 12 participants. Register early to ensure your seat!

Course Fee

\$1995.00 USD/person (NOTE: lodging & meals are extra)

Registration and Course Contacts

Katherine Roberts: Krobert2@exchange.calstatela.edu
Ph: 323 342 4625

Ted Sileniaks: Ted.Sileniaks@sa.gov.au

Mark Reynolds: Mark.REYNOLDS@police.wa.gov.au

