

## A Review on Forensic Entomology during Covid 19

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### Abstract

As the COVID-19 pandemic overturned college and college instruction throughout the world, instructors were hard-pressed to discover suitable alternatives for viable exercises typically carried out exterior of classrooms—in laboratories, workshops, clinics, and within the field. In response to this unanticipated challenge, they relied on their ingenuity to realize pre-pandemic goals beneath widespread conditions that required the move to online educating. The Forensic Science Undergraduate Program housed within the School of Medicine of the National Independent University of Mexico was not absolved from this instructive upheaval but, due to its intriguing nature, required creating and/or receiving a wide run of exercises capable of training students to perform viable errands related with subject areas that span the natural and social sciences, the humanities, and the law. Instructor's experiences during the pandemic have proven to be a wealthy source of bright arrangements, with implications well-beyond the current crisis, such as making mixed or completely online courses pointed at bigger numbers of understudies, forensic and lawful experts, and indeed other instructors. The wide variety of measurable sciences offers the opportunity to innovate and improve the educating and learning of science, especially to the benefit of understudies that must combine their school assignments with professional and/or family duties.

**Keywords:** Entomology; Anthropology; Hematology; Forensic science education

### Introduction

The Forensic Science Undergraduate Program (FSUP), facilitated by the School of Medicine of the National Autonomous College of Mexico (UNAM), was created in reaction to mounting financial, social, and political unrest due to tall levels of savage crime-particularly that related with the government's militarized response to the operations of drug cartels-and broad impunity at both the local and federal levels. As conceptualized by the FSUP mission statement and educational programs, the legal researcher will be a professional capable of understanding, explaining, and applying the theoretical and technical standards of a wide extends of scientific disciplines. Before the COVID-19 pandemic struck, it was nearly incomprehensible to suppose instructing forensic science to students without prepared get to specialized training facilities, such as wet and dry laboratories, workshops, mock crime scenes, court rooms, open air areas, and libraries, as well as field trips and visits to forensic laboratories [1-3]. Within the FSUP, all these instructional resources had been used, to a larger or lesser extent, within the process of preparing successive eras of legal scientists since the program's opening in 2013.

Despite the abrupt suspension of in-person exercises in colleges over all of Mexico from mid-March 2020 to December 2021, instructors in the FSUP-especially those in charge of subjects that require students to perform many hands-on activities-devised brilliant options to form up for the need of get to the facilities the School of Pharmaceutical has built to serve the specific preparing needs of measurable scientists [4]. These choices were focused on to a student populace that, in huge portion, does not have high-speed, dependable internet get to and does not claim a desktop computer or tablet for individual use-having instead to share it with guardians and/or siblings. In contrast to conventional undergraduate programs centered on a single teach, intrigue programs offer educators the one of a kind opportunity of sampling a wide run of teaching approaches to subjects of a broadly shifting nature and, hopefully, advance cross-fertilization among instructors around how to improve their possess instructing [5-7]. At a minute of uncertainty and openness to alter, such as the one we are currently living through, it appears important to leave an account

of the distinctive responses to the instructive challenge posed by the COVID-19 wellbeing crisis, as well as cultivate the trade of thoughts between instructors, directors, and department heads with the aim of cementing the upbeat discoveries and taking off behind actions that don't represent best teaching practices.

Forensic Entomology-offered in the fall semester of 2020 to 34 students-and Forensic Human studies and Hematology & Serology-both offered within the spring semester of 2021 to 35 students-drew our attention since of encouraging comments from a few understudies: the instructors responsible appeared to have overseen the no cruel feat of adjusting the plan of their courses to a distance learning modality that, before the widespread, had never been seriously considered viable for either the FSUP or the UNAM at large. Apart from the recounted prove of their victory in adapting to the restrictions imposed by the wellbeing restrictions, our intrigued in these subjects is motivated by their differing disciplinary content inside the biological sciences, the highly down to earth nature of their teaching, and the key roles they can play in the examination of violent crime.

we present an overview of the content and structure of the three courses, taken after by a detailed dialog of the most notable activities that enabled teaches to achieve the learning results specified for each in spite of the adverse conditions forced upon by the COVID-19 pandemic and the resulting closure of colleges. We then show the comes about of a survey that investigated students' sees of the practical exercises [8]. At long last, we talk about a few of the ranges of opportunity-identified from inputs given by both understudies and instructors-

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and conclude our report with lessons learned from the experience, highlighting insights that can be drawn for other science subjects that rely on hands-on exercises to develop students' technical proficiency. In the case of Hematology & Serology, understudies have previously completed the subjects of Cell Science & Natural chemistry, Genetics & Atomic Science, Criminalistics, and Strategies to Investigate Crime Scenes, from which instructors draw to show the properties, behavior, and identification of organic liquids for forensic purposes. In all three, there's a noticeable focus on covering standards and strategies pointed at preparing students to take an interest in scientific casework. Measurable Entomology and Legal Anthropology arrange their subjects in the setting of Mexico, since the nation is considered a biodiversity hotspot and its population boasts extraordinary genetic, ethnic, and cultural diversity factors that might be relevant when conducting entomological or anthropological scientific inquiries [9].

Free access, compatibility with accessible computing equipment, and ease of utilize were among the main reasons behind the choice of these tools. These-or similar-online management and communication platforms appear to be common sufficient resources utilized in response to the COVID-19 lockdown, indeed in the particular setting of forensic science education. As we are going see, each group of instructors included specific advanced devices to achieve their learning results, such as online databases, open get to software, free test systems, and YouTube videos and tutorials. The design of the kits factored within the role of its components in achieving the learning results of the course; the inventory of equipment and materials available within the research facility warehouses of the FSUP; the fetched of the objects and substances that students would ought to purchase; the possibility of operating the equipment and/or materials at home, and of safely disposing of any chemical or natural squander; the protective equipment accessible to understudies, and the limitations they might experience due to space-or other-restrictions while working from home.

## Discussion

None of the three main approaches trialed by educates of Forensic Entomology, Legal Anthropology, and Hematology & Serology is entirely without present as a response to COVID-19 school lockdowns. Londino-Smolar and Hansel purchased and customized commercial kits that included various legal science laboratory activities, adapting them to the topics and learning outcomes of a Legal Science course, while Miller reported on the utilize commercial drone kits for the teaching of digital forensics. In contrast with Londino-Smolar and Hansel's approach, educates within the FSUP tailor-made their take-home kits to address the learning results of their courses, without the need to set aside superfluous materials [10]. Furthermore, as was the case in Forensic Entomology, understudies not as it were overseen to utilize the items within the pack and perform the doled out errands at

domestic, but also learned how to develop a few of the hardware they required, assisting a greater understanding.

## Conclusion

Rising to the challenge of changing higher education to cope with the COVID-19 widespread, students and their families, instructors, administrators, and department heads-and the institutions they form a portion of—have appeared great flexibility and adaptability to change. In the case of the FSUP, instructors' clever reactions to the unfortunate and unprecedented circumstances that have ceased students from attending classes in universities' campus throughout Mexico and expansive part of the world-and, imperatively, prevented any face-to-face interactions with teachers and peers for more than 18 months-represent worthwhile additions to their pedagogical substance information. These happy disclosures will enrich the instructing and learning that, ideally, will before long return to a semblance of normality.

## Declaration of Competing Interest

The authors declare that they have no known competing interests

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## References

1. Rico Y (2019) Landscape genetics of Mexican biodiversity: a review. *Acta Univ* 29: 1894.
2. Moreno-Estrada A, Gignoux CR, Fernández-López JC, Zakharia F, Sikora M, et al. (2014) The genetics of Mexico recapitulates Native American substructure and affects biomedical traits. *Science* 344: 1280–1285.
3. Pokhrel S, Chhetri R (2021) A literature review on impact of COVID-19 pandemic on teaching and learning. *High. Educ Future* 8: 133–141.
4. Thompson TJU, Collings AJ, Earwaker H, Horsman G, Nakhaeizadeh S (2020) Forensic undergraduate education during and after the COVID-19 imposed lockdown: strategies and reflections from India and the UK. *Forensic Sci Int* 316: 110500.
5. Tóth D, Petrus K, Heckmann V, Simon G, Poór VS (2021) Application of photogrammetry in forensic pathology education of medical students in response to COVID-19. *J Forensic Sci* 66: 1533–1537.
6. Kader SN, Ng WB, Tan SW, Fung FM (2020) Building an interactive immersive virtual reality crime scene for future chemists to learn forensic science chemistry. *J Chem Educ* 97: 2651–2656.
7. Bretz SL (2019) Evidence for the importance of laboratory courses. *J Chem Educ* 96: 193–195.
8. Magni P, Guercini S, Leighton A, Dadour I (2013) Forensic entomologists: An evaluation of their status. *J Insect Sci* 3: 1-5.
9. Shepherd JP (1993) Presenting expert evidence in criminal proceedings. *Br Med J* 307: 817–818.
10. Fenton N (2014) Assessing evidence and testing appropriate hypotheses. *Sci. Justice* 54: 502–504.