



TECHNOLOGY TODAY

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UPCOMING EVENTS

Facilitation Skills Pilot Training
October 23, TTEC 179

*National Highway Institute Course No. 130078—
Fracture Critical Inspection Techniques for
Steel Bridges*
October 24-27, TTEC 100

*To view more events, please visit
<http://www.ltrc.lsu.edu>.*

TRAINING

New Professional Writing Course Offers a Fresh Take on a Stale Subject

A number of departmental employees in an array of positions throughout the state have indicated a need for a professional writing course. The Leadership Development Training group at LTRC jumped on the opportunity to develop a course targeted at fulfilling state requirements as well as making the class interactive and easy to implement on a daily basis. Developed and led by Training Program Coordinator/Teaching Associate Layne Brown, the new course has been offered three times at LTRC since May 2023, with a total of 60 in attendance.

“Clear written communication is the cornerstone of a successful workplace. Professional writing training equips employees with the skills to articulate their thoughts concisely and clearly,” explained Brown. “Whether composing email, reports, or proposals, the ability to convey ideas straightforwardly increases comprehension and minimizes misunderstandings.”

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In the span of a single day, course attendees are guided through structured times of analyzing their writing skills, discussing and practicing writing concepts such as conciseness and clarity, and creating mock email messages for an intended audience while fostering an understanding of the importance of context. Moreover, participants participate in editing exercises that further refine their skills, while collaborative group activities enhance their ability to work together effectively.

The course intends to offer fun while learning and reviewing common grammar mistakes as well as the importance of adjusting your writing for your audience. A recent attendee stated, “As ‘boring’ of a subject this may be for some, if nothing more, it is a fun and interactive class.”

Brown and her team are slated to travel to Districts 04, 07, and 08 by the end of the year with more to be scheduled as needed or requested. So whether you are an accountant or engineering technician, anyone can benefit by checking this class off their list and experiencing a fun twist on grammar and writing.

Please contact Layne Brown at 225-767-9721 or layne.brown@la.gov to learn more about the class or find out how to become registered.



LTAP

Walk, Bike, or Roll: LTAP’s Initiative to Enhance Pedestrian and Bicycle Safety in Louisiana

Did you know Louisiana has one of the highest pedestrian fatality rates in the country? In light of this, LTAP recently launched a new course to inform local agencies about this issue: “Safety of Vulnerable Road Users Workshop.” Through this class, LTAP aims to inspire change and help create safety plans all around the state to make pedestrian and bicycle activity life safer and drivers more aware.

The first workshop was held on August 10 in Thibodaux, and instructor and LTAP Director Steven Strength, P.E. led the course. Attendees included everyone from

parish engineers, police officers, safety coalitions, and anyone who could be qualified as a pedestrian or bicyclist.

The creators of the course explain that, in 2021, there were 35 bicyclists and 185 pedestrians in Louisiana whose lives were lost due to traffic crashes, and vulnerable road user fatalities made up 23% of the total traffic fatalities in Louisiana. This was the highest number of vulnerable road user crashes since 2007. This new course creates a multifaceted, collaborative, and comprehensive approach to this issue. LTAP hopes

to shine a light on transportation system opportunities and use preventative measures to avert issues for any person who walks, bikes, or rolls to do so safely in traffic.

This course defines vulnerable road users, observes factors in operating environments that are potential safety risks, suggests available sources that can be used, describes preventative measures, and reviews and adapts local road safety plans to meet vulnerable road users' needs.

Each of the classes in nine different regions in Louisiana is personalized by using crash data for that specific region. Whether it's Covington or West Monroe, participants are given the opportunity to investigate alternative approaches in their particular region.

“We give them the ability to examine opportunities for low-cost safety measures that they can implement, as well as more comprehensive solutions, using available federal funding,” Strength said regarding the class.

Through group exercises and class discussions, LTAP hopes to provide a networking environment so that a community can begin to improve traffic and road conditions for all.

While there is still much to do to decrease fatalities across the state, Strength and his team hope this course is the beginning of meeting a specific need, allowing for a safer environment for drivers and pedestrians alike.

“
We give them the ability to examine opportunities for low-cost safety measures that they can implement, as well as more comprehensive solutions, using available federal funding.
”



RESEARCH

Shedding Light on Louisiana's Nighttime Intersection Safety

A recent LTRC study examined whether Louisiana has traffic safety problems due to a lack of lighting at its intersections, particularly at roundabouts and stop-controlled intersections, in rural and suburban areas. With over 2,275 crashes occurring during 2010–2020 and zero state lighting requirements, a study was launched to discover if intersection lighting has a significant impact on driver behavior and safety.

The study was led by LSU Assistant Professor in Transportation Engineering Hany Hassan, Ph.D., and titled “Minimum Intersection Illumination.” The primary goal of this research was to investigate if Louisiana faces a traffic safety issue due to the lack of lighting at intersections. It also aimed to explore how lighting affects driver behavior, assess other states’ lighting policies and equipment, and calculate the costs and benefits of adding lighting to Louisiana’s roads.

The study focused on 577 stop-controlled intersections and 19 roundabouts in rural and suburban Louisiana. It used a multi-step methodology, including a literature review, a national survey among professionals working at US DOTs, crash data analysis, a driving simulator experiment, and a cost-benefit analysis.

The study’s findings showed that, while street lighting generally improves nighttime traffic safety, state policies vary. Some states mandate lighting at roundabouts, while others do not require it at stop-controlled intersections. Interestingly, the analysis did not reveal a significant traffic safety issue in Louisiana due to a lack of lighting at these intersections.

However, the driving simulator experiments demonstrated that street lighting significantly improved nighttime traffic safety, giving drivers more time to react. “The simulations consisted of two scenarios for stop-controlled intersections and roundabouts. In each scenario, different lighting conditions were used, and drivers’ behavior was collected and analyzed. The four



lighting conditions used in this experiment included: daytime, nighttime without street lighting, nighttime with partial lighting, and nighttime with full lighting,” Dr. Hassan explained. “The results of the driving simulator experiment (especially for stop-controlled intersections) indicated that providing street lighting (partial or full) improves overall traffic safety by increasing the time to collision (TTC) parameter, and decreasing the deceleration rates at these intersections.”

In addition, the cost-benefit analysis from the study suggested that adding street lighting at stop-controlled intersections in rural and suburban areas in Louisiana would be feasible, considering the benefits shown by the simulation and its participants.

Based on the overall findings, the study recommended monitoring newly lit intersections’ safety, selectively adding lighting based on traffic safety analysis, using low-cost safety measures where lighting is not feasible, running awareness campaigns to discourage traffic violations, and conducting future studies to validate these results.

For more information on this project, please visit our *final reports page* by clicking on *Final Report 677* (https://www.ltrc.lsu.edu/pubs_final_reports.html) or contact Dr. Hassan at hassan1@lsu.edu or (225) 578-6588.



Five Ways AI Can Assist in Adult Education and Training

With the emergence of Artificial Intelligence (AI), every sector of work has been asking, “Will this replace me?” AI has developed a broad range of skills, so this question is not completely irrelevant. Many AI software programs have been created to assist with the formation and development of textual, audible, and visual artifacts. However, AI should be viewed more as a tool that will help to enhance productivity, not replace employees. In the adult education realm, here are five ways trainers and instructional designers can utilize this new technology in their daily workflow.

1 Creating Course Content

This can include objectives, outlines, and even scripts with instructor notes. Start with the big picture items, and then ask for specifics per category. For example, after producing course objectives and a course outline, generate new objectives for each outlined item, along with an instructor script for that item.

Prompt: Write an outline for a half-day course on [insert topic]

2 Brainstorming Course Activities

From individual activities to group work, simply asking for examples can spur creativity to help learners put into practice what they are learning. Alternatively, AI can help modify current games or create new games for specific topics.

Prompt: List 5 small group activities/games to engage students on [insert topic]

3 Developing Assessments

Whether formal or informal, AI tools can help develop course assessments in verifying knowledge transfer. This may include all types of tests and various types of questions (e.g., true/false, multiple choice, or discussion). Instructors may utilize these before, during,

or after a course. Generally, responses will include questions and answers, along with an answer key.

Prompt: Create a 10-question multiple-choice post-test measuring the learning transfer of [insert objectives]

4 Checking Grammar and Spelling

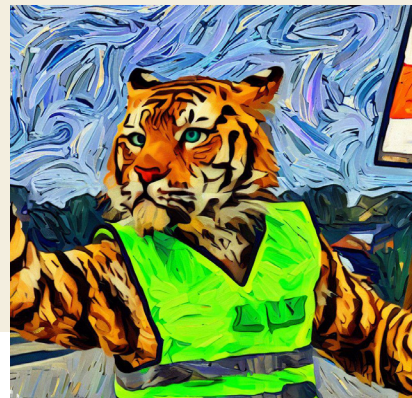
As a more robust version of spell-checker, AIs can also assist with grammar, proofreading, and more.

Prompt: Check this text for grammar and re-word areas to sound more professional as needed. Condense and combine sentences that may repeat information.

5 Creating Digital Content

Acting as a digital media member of your team, AI can generate new voices to read your scripts, new pictures, and videos of things you can't imagine, and put them together in a PowerPoint.

Prompt: A tiger wearing a green safety vest flagging for a construction work zone on a highway in the style of Vincent van Gogh



The newer AI tools are referred to as Generative AI—meaning they create (or generate) something new. Partial AIs, referred to as Discriminative AI, can only work within the context they know and must play within their boundaries. Consider Siri, Alexa, or Google

and the many times they may have responded along the lines of, “Sorry, I am unable to help.” When using Generative AI models, it is imperative for subject matter experts to verify the information being provided and review the content for any bias. Human intervention is still needed to consider the context. Lastly, prompts used can change the tone, content, and depth of the response from an AI bot. Try various options and adjust any settings available to generate different results, including as much information as possible is also helpful (e.g., subject area, target audience, learning objectives).

Overall, instead of fearing the future of AI and its impact on the workplace, there are many ways trainers can use the developing technology for their benefit. Whether it’s generating a last-minute group activity or adding visual items to your presentation, the options are endless and continuously evolving, allowing trainers and educators to streamline and structure their content in more ways than ever before.

**This article was written with the assistance of Bing Chat. The prompts given included a variation of the following statement: You are an expert instructional designer who is also an ATSSA-certified instructor. [Prompt] for a half-day course on “flagging procedures and safety rules for work sites.” Students include highway professionals in the construction field. Learning objectives include [insert learning objectives].*

STAFF NEWS

Updates and Accomplishments

Congratulations to Engineering Technician Training Program Manager **Claire Dixon** on receiving her CPTP Professional Trainer Certificate.



LTAP Innovation and Technology Transfer Manager **Rudynah Capone** received statewide recognition for her remarkable contribution in the success of the Louisiana Lions Multiple District 8 Club’s 100th State Convention held this past April 2023 in New Orleans. Consequently, she was appointed to be the new Public Relations Director of the New Orleans Filipino American Lions Club where she volunteers her community service hours on weekends.

Leadership Development Program Manager **Marcus Sylvas** was recently selected to speak at the BRAC Young Professionals conference. His presentation was titled, “L.O.L. (Lead Out Loud),” where he discussed the importance of engagement in the workplace. Marcus highlighted strategies as to how anyone can lead “out loud” in a workplace society where “quiet” terminology has become a trend.

Congratulations to **Jenny Gilbert** on her recent appointment to the position of Manager of Multimedia and to **Dimetrie Chopin**, who has been selected as Section 33’s newest PCC/Structural Training Program Manager Tech DCL.

Assistant Professor, Research, Planning/Intermodal Research Manager **Ruijie “Rebecca” Bian**, Ph.D. has been selected as one of the 11 members currently serving on the Active Transportation Committee. The committee falls under the Transportation and Development Institute (T&DI), which is one of the nine technical Institutes of the American Society of Civil Engineers (ASCE). Rebecca will help disseminate and support advancements in research and policies related to active transportation (e.g., walking and biking).

PUBLICATIONS

Recently Published

Final Report and Technical Summary 672 (20-1SS)

The Future of the Louisiana Waterways Transport System: A System Analysis and Plan to Move Commerce by Water

Ricardo Cruz, Jonathan Hird, P.E., and Stephen R. Barnes, Ph.D.

Final Report and Technical Summary 678 (19-3SA)

Pedestrians and Bicyclists Count, Phase 2: Implementing and Applying Multimodal Demand Data

Tara Tolford, AICP

Final Report and Technical Summary 679 (21-2SS)

Evaluate the Impacts of Complete Streets Policy in Louisiana

Ruijie “Rebecca” Bian, Ph.D., Tara Tolford, AICP, and Sirisha Gangireddy

Final Report and Technical Summary 680 (23-1ST)

MASH TL-4 Engineering Analyses and Detailing of 36-in. and 42-in. High Median Barriers for LADOTD

William Williams, P.E., and Jilong Cui, Ph.D.

Final Report and Technical Summary 681 (21-2P)

Correlation of Rut Depths Measured by the Profilers of LTRC and DOTD PMS

Qiming Chen, Ph.D., P.E., and Zhongjie Zhang, Ph.D., P.E.



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