Framingham State University

Friday, May 6, 2016
McCarthy Center, Forum
10 A.M. TO 7 P.M.

5th Annual
Student Poster and Presentation Day

Event sponsored by
CELTSS Center for Excellence in Learning, Teaching, Scholarship and Service
and the Fashion Design and Retailing Department.

For more information, please contact CELTSS at celtss@framingham.edu.
Welcome to Framingham State University’s Fifth Annual Student Poster and Presentation Day!

Today marks our fifth great celebration of student scholarly work and faculty support. As students, you have taken special initiative to understand something deeply, and you have worked by the side of your faculty who have spent their time sharing with you their academic fields and expertise. They have done so because they care about you and your success, and they are optimistic about the future they see in you. Today, the steps you have taken to understand your chosen field and how it makes progress will open many doors for you as you move into your professions and careers. Your work and future work, also, will improve life for others in multiple ways—improving healthcare; enlivening the arts; creating new strategies for people to understand their own behavior and that of others; enabling businesses to thrive; teaching people of all ages; caring for the planet; and making discoveries in the sciences that matter. Keep learning. Keep working. Thank your professors, and continue to expect a lot of yourselves. This is a significant moment. **We are proud of you. Congratulations!**

To Professors Jon Huibregtse, Virginia Noon, Phoebe Lin, Nicholas Sedlock and our faculty who serve the university through the Center for Excellence in Learning, Teaching, Scholarship and Service, thank you for your hard work and success in making this event happen. Great work! To our faculty who have mentored these students who are here today, what a community you have created! Clearly, it is something to celebrate. Thank you.

**Linda Vaden-Goad, Ph.D.**

**Provost and Vice President for Academic Affairs**
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Fashion Design and Retailing Portfolio Day

Friday May 6, 2016
10:00 – 11:30am
McCarthy College Center Forum

Design Students presenting final senior design portfolio

FASH 487 Apparel Design Portfolio (Capstone course)
A capstone experience to organize and present design work created in the Fashion Design and Retailing program and to produce a portfolio required to obtain a professional position in the apparel industry. Students develop a portfolio to demonstrate knowledge and skills in: a variety of garment categories; hand and computer illustration; flat sketching techniques; and original full scale garments. Ideas are assembled in an aesthetic and professional format by integrating the components of design, fabric, and end use. A portfolio presentation is required.

Student Design Portfolio Presentations
Sponsor: Brianna Plummer

<table>
<thead>
<tr>
<th>#</th>
<th>Designer’s Name</th>
<th>Designer’s Statement</th>
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<tbody>
<tr>
<td>1</td>
<td>Angie Brutus</td>
<td>Under the label Pavilion by Angie, I design to evoke curiosity and amazement in every creative project and to encourage others to make with what is available to them or “create on their own terms.” In essence I pull inspiration from the antique zeitgeist of Isabella Stewart Gardner, the whimsical style of artists like Dali and the contemporary elements of New York streetwear. I design for an outgoing, bubbly, eccentric, glamorous woman, a socialite. I want to take you on a journey.</td>
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<tr>
<td>2</td>
<td>Jennifer Clark</td>
<td>As a young fashion designer I aspire to make garments that allow women to feel confident in what they are wearing. I am currently expanding my &quot;Feminine profanities&quot; collection. This collection combines flirty and elegant style lines along with edgier pieces that allow the wearer to have a wardrobe that is sure to be appropriate for a variety of events.</td>
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<td></td>
<td>Designer’s Name</td>
<td>Designer’s Statement</td>
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<td>3</td>
<td>Rachel Flaherty</td>
<td>My purpose for designing is to create fashionable and functional pieces for niche markets such as maternity, prom, and lingerie. These designs appeal to modest girls and women with a feminine aesthetic. Inspired by my surroundings and photography, my designs are created with the customer’s need in mind.</td>
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<tr>
<td>4</td>
<td>Kaitlyn Kiley</td>
<td>As a designer, I am inspired by futuristic, space-age aesthetics combined with classic or historical components. While my work is mostly in costume design, I also design garments with editorial elements to them as a way to challenge my creativity and experiment with my design skills. Combining the past and ideas of the future to create unique garments that make a bold statement while also empowering the wearer is my mission as an artist.</td>
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<td>5</td>
<td>Amanda Langill</td>
<td>As a designer, I aspire to manipulate textiles into garments that make a woman feel beautiful. I am inspired by a woman’s natural poise. The mix of classic romance and modern elegance in my designs allows for all women to be dressed based on their personality and individual setting.</td>
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<tr>
<td>6</td>
<td>Ariel Leone</td>
<td>I design to create mix and match pieces that allow easy transitions from office to evening, travel to gym, and formal to casual. As people of all ages become increasingly adept at multi-tasking, so should their clothing. Less can be more…much more. Introducing “MultiWear”.</td>
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<tr>
<td>7</td>
<td>Samantha Pajer</td>
<td>As a fashion designer from a small town in central Massachusetts, I design eveningwear I would have never worn but wish that I could. My designs have an edgy take on classic elegance with a bit of hidden sexuality that target young, confident, sophisticated women in their twenties. The structure and movement of my garments are inspired by New York City and its nightlife, as well as music and dance from rap to pop to rock and roll.</td>
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<td>8</td>
<td>Courtney Patterson</td>
<td>I describe my work as urban chic, where I take inspiration from modern streetwear and the busy city life. The women I design for are young, independent, and live multifaceted lifestyles. They appreciate versatile statement pieces to support their lifestyle, transitioning from daywear or nightwear.</td>
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<tr>
<td>Designer's Name</td>
<td>Designer’s Statement</td>
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<tr>
<td>Nicole Spinner</td>
<td>My garment designs were influenced by minimalist fashion and bold geometric patterns to create a structured, modern collection. Clean lines and feminine silhouettes are used to achieve a traditional but unexpected take on 1960's mod fashion. Neutral, classic, and simple I designed this collection for independent young women ready to take on anything life has to offer.</td>
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<tr>
<td>Sarah Sybicki</td>
<td>I am a couture designer and an artist. My inspiration draws from mythological fantasy concepts, fine art, poetry, and nature. My romantic ensembles are intended for use in high fashion editorials and theatrical fashion shows.</td>
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<tr>
<td>Wanita Thomas</td>
<td>Fashion is part of our everyday life, with styles and trends constantly evolving. To continue this cycle, I found inspiration in designing for young curvy women. My clothes are made to naturally accentuate the hips and full body structure. I experiment with fabric combinations to emphasis texture, color palette, and silhouette. For these reasons I will always have a passion for fashion.</td>
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<tr>
<td>Kristen Torres</td>
<td>As a Designer I wish to empower women in everyday life and to blur the lines between fantasy and reality. With my costume designs I try to incorporate a character’s personality and background to further influence the viewers. With my ready to wear, I like to merge classic shapes with edgy details. I combine these two ideas by creating garments inspired by film and design in a way that the client feels confident, but others would not think it was strictly costume.</td>
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<tr>
<td>Shelby Vickowski</td>
<td>My goal as a designer is to create timeless looks that appeal to Confident and independent women. I use my strength as an artist to emphasize line and silhouette and use these elements to create simple and classic looks in my designs. Through unexpected details and fabrication, my ready to wear and evening wear provide an alternative approach to understated looks.</td>
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**Merchandising Students presenting business, buying, and promotional plans**

FASH 464 Fashion Merchandising: Planning, Policies, and Implementation (Capstone course)

An analysis of industry standards in a business plan for a model retail business. Concepts included are financial planning, store location, organizational structure, merchandise assortment, and financial structure of the apparel and home furnishings industries. The role of the buyers and managers in policy making is analyzed. Open-to-buy and pricing are calculated and evaluated. Procedures and techniques practiced in assortment, movement of goods, customer service, security, and store policies are reviewed.

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<thead>
<tr>
<th>#</th>
<th>Group Members</th>
<th>Store Name and Description</th>
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<tbody>
<tr>
<td>2</td>
<td>Brianna Benvenuti, Jocelyn Dion, Briana Gilbert, Erika Simon</td>
<td><strong>Luxe Specialty Dress Boutique</strong>&lt;br&gt;The mission of Luxe specialty dress boutique is to provide young women with a signature dress for any special occasion.</td>
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<td>3</td>
<td>Kiana Brown, Geraldine Cortez, Rachel Wheeler, Ashley Williams</td>
<td><strong>J.W.: Jeans for Women</strong>&lt;br&gt;J.W.: Jeans for Women is a retailer selling denim jeans located in Newton, MA. The mission of J.W. is to provide quality denim jeans for women of all shapes and sizes at an affordable price while maintaining sustainable and socially responsible business practices.</td>
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<tr>
<td>5</td>
<td>Raphaela Esposito, Mackenzie O’Connor, Samantha Robinson</td>
<td><strong>Felicity Arabella</strong>&lt;br&gt;Felicity Arabella is an accessories boutique dedicated to helping professional yet stylish women in Boston find the best accessory to suit their needs, while also helping provide jobs for women artist around the globe. Whether it’s a new pair of shoes for her big presentation, or a handbag that seamlessly transitions from a business meeting to lunch with the girls, Felicity Arabella is all about classic styles with trendy updates that are sure to help you stand out from the rest. The company is committed to providing customers with key pieces for everyday life.</td>
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<td>#</td>
<td>Group Members</td>
<td>Store Name and Description</td>
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| 6  | Ceri Alwyn  
    Shaina Mansur  
    Lynne Sirchia  
    Kalina Swana | STRIVE  
    The STRIVE specialty store supplies women in the Boston area with sustainable on trend active wear, to fulfill the individual’s fitness goals and needs. |
| 8  | Kayla Benitez  
    Becca Gagnon  
    Sirena Gebeau  
    Kara Reardon | Attaché  
    Attaché is a brand that sells durable, reusable, and eco-friendly shoppers where fashion meets function. The target customer of the company is working women ages twenty three and up, with a busy lifestyle. |
| 9  | Cassandra Calixte  
    Molly Dubrowski  
    Taylor Loesch  
    Kianna Ostrander | Posh  
    The mission of POSH, a specialty footwear boutique, is to provide young adults entering the work field with the most comfortable and appropriate shoe for their new career. POSH will employ skilled and dedicated individuals to make up a stylist team. The stylist team will meet each guest with one on one customer service and create a bond that will last. POSH’s company goal is to make sure every guest leaves with a pair of shoes that fits their personality as well as their career, giving them the confidence to flourish in the workforce. POSH’s mission to give back is collecting and recycling old pairs of shoes. This supports not only a Boston initiative but a nationwide “Go Green” effort which will allow POSH guests to feel good about their shoes and their environment. |
| 11 | Katie Callahan  
    Kaitlin Delaney  
    Kayla Dutcher  
    Alexandra Sookiasian | Meraki  
    Here at Meraki, we create sustainable, fashion-forward activewear inspired by the idea of putting soul, creativity and love into your everyday life and making it the essence of yourself. Your active-wear should be representative of you, which is why we create a wide range of products that utilize a variety of colors and patterns that are just as trendy as they are functional. Using the highest quality of eco-friendly materials, we are able to design products that meet the needs of a versatile lifestyle, whether you are an athlete or a world traveler. No matter where your life may take you, Meraki will get you there comfortably and in style. |
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<th>#</th>
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<tr>
<td>12</td>
<td>Genevieve Brown, Dana Goldstein, Elizabeth Johnson, Chelsea Pajzer</td>
<td>Denim Bar</td>
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<td>Denim Bar is a specialty denim retailer, located in Wellesley, Massachusetts intends to provide women with custom-fitted jeans through the use of interactive tablet technology and personal stylists. While providing individuality, femininity, and functionality, Denim Bar’s focuses on offering women a unique pair of jeans in accordance to their lifestyle.</td>
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<tr>
<td>13</td>
<td>Emily Cooper, Emma Fitzpatrick, Ruhama Noronha, Tatiana Veira</td>
<td>PerFIT</td>
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<td>PerFIT is a privately owned women’s athletic wear boutique that strives to create the perfect fitting sports bra and spandex bottom for every active female, at an affordable price for their athletic activity of choice.</td>
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*Merchandising Students presenting business, buying, and promotional plans*

FASH452 Fashion Promotion
A study of promotional activities related to fashion merchandising. Theory and application of visual display, special events, publicity, and advertising are emphasized. Factors such as organizational philosophy, store image, and budgeting are considered.

**Student Retail Promotional Campaign by Groups**

*Sponsor: Hae Won Ju*

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<th>Store Name and Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Kiana Brown, Bridget Chafe, Briana Gilbert, Alyssa Lee</td>
<td>Caio Bella</td>
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<td>Caio Bella is a hypothetical boutique style retail store that was created by the presenting students in order to make a promotional and marketing plan. The brand is a feminine brand whose target market consists of young women aged 18-30 who do not have a large income but want to keep up with the latest fashion trends. Caio Bella offers its consumers a wide range of products, tops, bottoms, outerwear, and accessories for a relatively low price, ranging from $20-$100. Some of the brands top competitors are Francesca's and H&amp;M.</td>
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<td>#</td>
<td>Group Members</td>
<td>Store Name and Description</td>
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| 4  | MacKenzie O'Connor, Samantha Robinson, India Ward, Lucy White | **Isla Windsor**  
Isla Windsor is a retail store located in Chestnut Hill, Massachusetts. Isla Windsor sells upscale clothing in a boutique style that have a background in sustainability as well as fashion and functionality. Target market is women aged 35-50 who are family oriented, married, have children, and have a household income average of $100,000. Isla Windsor focuses on the customer first and will feature promotional plans such as in-store events such as a flower centerpiece workshop and special viewings for new collections, personal shoppers who will maintain contact with the frequent shoppers, advertisements in the Boston Globe, local TV channels and Pinterest. Isla Windsor hope to see growth and foot traffic go up by at least 30% within the next three months using the marketing tactics planned. |
| 7  | Kayla Benitez, Justine Dorsi, Jaime Gartman, Shaina Mansur, Carly Rettig | **Nova**  
Our store Nova has a theme of cocktails with a view. Our stores will be located in areas outside of the city; such as Burlington, Woburn, and Somerville. Our brand carries clothing that is modern chic with clean lines and convey's a classic look. |
| 10 | Genevieve Brown, Cassandra Calixte, Jessica Fiers, Michaela Froio | **SHIFT**  
Shift encompasses and caters to the lives of busy working women ages twenty to thirty-eight. Shift is located in the Natick Collection and carries products and services from nail polish to blazers and makeovers to cocktail dresses. Shift is a one stop shop for classic pieces which can easily transition from day to night. |
| 14 | Olivia Joubert, Jay Knight, Lanna Mosca, Josephine Nazzaro | **Je Ne Sais Quoi**  
Je Ne Sais Quoi is one of Boston's newest and, up and coming Luxury Brands, targeting hard working, determined women who are looking for classically updated styles. Je Ne Sais Quoi is located on Newbury Street in Boston, Massachusetts. The company's goal is to bring its consumers a luxurious lifestyle through fashionable clothing, accessories, and fragrances. While the overall objective is to promote and create a successful brand, it is also highly important to bring the best fashion, quality, and style to the women of Je Ne Sais Quoi. |
### Undergraduate Oral Presentations

**Alumni Room**

12:30 – 1:30pm

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<tr>
<th>Presenter Name</th>
<th>Title</th>
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<td>Prison Animal Programs through a Criminological Lens</td>
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<td><strong>History</strong></td>
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<td>Chelsea Hathaway</td>
<td>Absence Makes the Heart Grow Fonder: Wives in North America, 1750-1800</td>
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### Undergraduate Poster Presentations

**Forum**

**Poster Session 1: 1:00 – 1:45pm**

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<td><strong>Computer Science</strong></td>
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<td>Sara Hakkoum, Trevor Gorman, Christina Reid, Thomas McNulty</td>
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<td>Mark Morabito, Samir Leal, Gustavo Moraes, Ryan Ahearn</td>
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<td>Jayati Patel, Nathan Dentzau, Sherwyn Cooper, Evan Jensen, Parth Patel, Shivangi Misra, Jayati Patel</td>
<td>Real-Time Data Representation with Public Accessible Repository Using Web Interface</td>
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### Poster Session 1: 1:00 – 1:45pm

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<tr>
<th>Poster Number</th>
<th>Authors</th>
<th>Title</th>
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<td>4</td>
<td>Natalie Ahern, Lindsey Keady</td>
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<td>Tatiana Baymon, Thalia Kelly</td>
<td>The Classic Trench Coat</td>
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<td>6</td>
<td>Kiana Brown, Anne Curley</td>
<td>Adore the Fedora</td>
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<td>Bridget Chafe, Lanna Mosca, Camilla Hart, Olivia Joubert</td>
<td>Facing the Facts: The Northface Consumer</td>
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<td>9</td>
<td>Gerladine Cortez</td>
<td>Rose Boutique Store Creation: Planning merchandise assortment and visual merchandising</td>
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<td>Kaitlin Delaney, Brianna Benvenuti, Erika Simon</td>
<td>Baby Boomers; Chico's</td>
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<td>You Know the Drill: Buy Some Espadrilles</td>
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<td>Raysam Donkoh-Halm</td>
<td>The Kente: Cloth of Kings</td>
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<td>13</td>
<td>Rachel Flaherty</td>
<td>Adaptive Wear Research</td>
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<td>14</td>
<td>Brinsley Fonseca, Sarah Buotte</td>
<td>Blazin' Birkenstocks</td>
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<td>Allison Kittredge</td>
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<td>Alyssa Lee, Briana Gilbert, Kianna Ostrander, Cerridwen Alwyn</td>
<td>Uniqlo</td>
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<td>Margaret Looney, Kayla Dutcher, Katherine Callahan, Lynn Sirchia</td>
<td>Nike Men's Wear: Consumer Behavior</td>
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<td>Olivia Mangue</td>
<td>The Best of the Vests</td>
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<td>Marissa Parks, Rachel Noel</td>
<td>Ugg Boots</td>
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<td>The Famous Parka Jacket</td>
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<td>Nicole Santostefano, Tresja Belton</td>
<td>No Socks with Your Moccs</td>
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UNDERGRADUATE ABSTRACTS

BIOLOGY

1. Diane Archambault  
   **Sponsor: Amanda Simons**

**How Long Term, Low Dose Resveratrol Effects K562 Cells**

Resveratrol is an antioxidant that can be found in plants such as red wine, and other food sources. This compound may have cancer chemopreventive activity. Many studies have investigated the effect that resveratrol has on cells and how resveratrol causes this chemopreventive activity using different doses of resveratrol over a short period of time in high concentrations. However, the body does not realistically consume these high concentrations in a short period of time. I am investigating how K562 leukemia cells react when they are exposed to low doses of resveratrol over a long period of time. Doing this will more closely simulate the body’s ability to metabolize and react to resveratrol.

BUSINESS AND INFORMATION TECHNOLOGY

2. Michael Black, Laura Visser, Biljana LaMadline  
   **Sponsor: Karen Druffel**

**Cloud Computing Security Awareness of the Average User**

In the last few years, cloud computing has moved from being a concept for convenient information storing to being one of the most requested services in the IT industry. Many businesses have adopted the practice of storing large quantities of data in the cloud as it can conveniently be accessed from any location through any internet capable device. This ease of access attracted the attention not only of large businesses but also that of individuals. Apple Inc. for example offers free cloud storage for individuals who purchase and use their iPhone, allowing them to store and access their pictures and other information from any other device and in the event their phone is lost or stolen, the information stored on the cloud remains intact and available to its owner. This increase in the practice of personal information being stored using cloud technology, naturally, raises the question of how secure the data and information stored in the cloud really are? The cloud service providers are persistently working on ways to insure the safety and security of the data their clients store, but nevertheless security issues and the possibility of a security breach still persist. In this research paper we focus on the individual user and find how secure people believe their personal information is while stored in the cloud. For that purpose we selected thirty people at random who use cloud services and asked them about their experience using the survey method. We used the information they give us to determine how secure people feel their data stored in the cloud is, and why do they trust their information is being kept safe.

3. Daniel Blute, Ricky Desir, Joshua Kane  
   **Sponsor: Karen Druffel**

**Consumer Trust and Adoption for Mobile/Digital Wallet Applications**

Within the past few years, the world has been moving further away from paper billing and adopting newer and more convenient online methods of transaction. Mobile Wallet Applications are used to store a user’s credit card information on their smartphone for use through physical and online point-of-sale systems. Since mobile wallet technology is a relatively new concept, people are skeptical about the security measures taken by the application developers. Our research attempts to see if college students trust mobile wallet applications and if such applications will replace physical wallets in the future.

4. Jenny Frazier, Marisa Brady, Nadine Elmassih  
   **Sponsor: Karen Druffel**

**Secure or Unsure?: EMV Chip Technology**

Recently the United States was introduced to a new technology known as EMV. EMV is the credit card security standard created by Europay, MasterCard, and Visa. It utilizes not only a magnetic strip and a PIN, but also a computer chip that creates a unique transaction code after each use that cannot be
replicated. According to research from countries that have adopted the technology, it is expected to bring more security and help to protect consumers. Security protocols are always changing, but with the new computer chip technology consumers are more likely to feel more comfortable using their credit cards. College age students are often uninformed about updates and changes in security. In order to analyze the impact of this new security change a survey was conducted of 100 students to determine if they are aware of the recent upgrade in credit card protection. Many consumers have adopted this new technology and our analysis will determine if college students feel more secure with this extra layer of security even with the apparent risks of fraud.

5. Julian Nanton, Jill Southard, Taylor Cahill  
Sponsor: Karen Druffel

Cyber-terrorism and College Student Awareness

Cyber-terrorism has become a noticeable threat to national security in today’s interconnected world. With a platform that enables communication, recruitment, and exchange of information, the Internet has become a reliable tool for terrorist groups. Cyber-attacks also known as cyber-terrorism are politically driven use of computers and information technology to cause severe disruption and instill fear into society. Today, college students in the United States frequently use the Internet in their daily lives. Due to their heavy presence on the Internet, college students have the potential to be affected by cyber-terrorism. For our research, we will be studying if college students are aware of what cyber-terrorism is and the potential risks they can face. In order to conduct this research we will first point out the risks college students face from cyber-terrorism. We will then pass out surveys to 50 randomly picked students at Framingham State University in order to collect data on student awareness of cyber-terrorism.

6. Philomena Nessralla, Amber Shriever, Mark Hone, Rachel da Silva  
Sponsor: Karen Druffel

Two-Factor Authenticators: Understanding and Describing Authentication Methods

As technological advances alter the way data is accessed and transferred, the potential for unwanted data exposure increases. The demand for internet-enabled devices and low-cost self-service portals increase, businesses have started to adopt two-factor authenticators to ensure that data exchanged between customers is secure. Internet users were surveyed to better understand how two-factor authentication is being received. Results show that 81% of participants use two-factor on web sites, 87% of total surveyed thought the two-factor authentication improved web site security. 75% have average to above average knowledge with internet security.

CHEMISTRY

9. Ashley Fairweather  
Sponsor: Jesse Marcum

Formation of Gold Nanoparticles with Alcohol Co-Solvents and Tetrachloraurate

Tetrachloraurate is a gold atom with the oxidation state of +3 that is surrounded by four chlorine atoms and it is a precursor for gold nanoparticles. The photoreduction of tetrachloraurate to gold nanoparticles can be very useful in society varying from biological and environmental systems to engineering and nanotechnology. In this experiment, potassium tetrachloraurate is reduced to gold nanoparticles in the presence of UV light and alcohol co-solvents. Irradiation of the sample is not needed but it helps speed up the reduction reaction by putting the sample into an excited state. The alcohol co-solvents act as reducing agents in the reaction, which also speed up the process of forming gold nanoparticles. This experiment was performed with a UV It appears that ethylene glycol has the greatest dissociation constant for gold nanoparticle formation.
10. Stephanie Fales

**Sponsor: Dwayne Bell**

**Synthesis and Purification of Metalloporphyrins to Be Used for the Catalytic Oxidation of Lignin**

Plant-based biofuels provide a possible solution to the global reliance on fossil fuels. However, the cellular structure of plant material, primarily lignin, hinders the possibility of commercial production of biomass as fuel. Currently available chemical procedures for breaking down lignin suffer limitations such as harsh reaction conditions and high costs that greatly reduce the likelihood of production on a commercial scale. Metalloporphyrins have been shown to have good catalytic properties in regards to the oxidation of lignin models. This research seeks to find a scalable method for the production of metalloporphyrins and the application of such porphyrins for the catalytic oxidation of lignin material. Meso-tetraphenylporphyrin is a known compound with a published synthesis. The reagent ratios, addition sequence, and isolation procedures were varied in this research in order to probe for process efficiency and scalability and limit the use of expensive purification techniques, such as column chromatography. It was determined that an increased benzaldehyde to pyrrole ratio improved purity of the product. Metalloporphyrins were synthesized using Mn(III) acetate, Mn(II) acetate, and Fe(II) acetate by adjusting reaction conditions for scalability, cost effectiveness, and toxicity. Based on these findings, metallated meso-tetraphenylporphyrins show promise based on their stability and relatively efficient and inexpensive synthesis, to act as a commercial method for the catalytic oxidation of lignin.

11. Maryana Fialho

**Sponsor: Sarah Pilkenton**

**Analysis of UV Filters in Sunscreens**

Sunscreens often contain mixtures of organic and inorganic compounds referred to as UV filters. The inorganic UV compounds, such as zinc oxide and titanium dioxide, work by reflecting or scattering UV radiation while the organic compounds absorb UV radiation. Most of the organic UV filters currently being used throughout the world can be classified as derivatives of PABA (p-aminobenzoic acid), p-aminobenzoates, salicylates, cinnamates, benzophenones, anthranilates, dibenzoylmethanes, and camphors. In this research, UV spectroscopy and chromatography were used to analyze extracts of several commercially available sunscreen products composed of organic UV filters. UV spectroscopy was used to analyze the spectrum of each sunscreen formulation, while the composition of each sunscreen was analyzed through chromatography.

12. Paul Iarussi

**Sponsor: Vinay Mannam**

**Quantification of Caffeine and Chlorogenic Acid from Coffee Brewed in French Press at Different Brew Times and Temperatures**

Coffee is used daily by 60-75% of Americans as their primary source of caffeine and over 80% of them consume it daily. Coffee has a vast array of physiological effects such as increased metabolism, elevated heart rate, as well as a stimulating effect that contributes to increased alertness. The objective of this research is to determine how time and temperature affect the quality of coffee, more specifically how concentration of coffee’s two main phenolic compounds caffeine and chlorogenic acid vary. Using a French press brewing method along with Folgers 100% Columbian pure ground coffee to see how time and temperature affect one type of brew and one type of coffee. Two treatments were used to test time and temperature. Temperature increments were made at 5 degree from 165°F to 210°F while holding brew time constant at 5 minutes. Brew time is analyzed with two minute increments from 6 minutes to 24 minutes while holding temperature constant at 200°F. After coffee solutions had been brewed, a dry solids analysis showed that a temperature of 175°F (2.10%) and brew times of 14 minutes (1.72%) yielded the most amount of dry solids. From HPLC analysis, an optimal brew temperature was found to
be 195°F for caffeine content and 165°F for chlorogenic acid content. An optimal brew time was found to be 22 minutes for both caffeine and chlorogenic acid content.

13. Bailey McLernon  
Sponsor: Shelli Waetzig

Reaction Development of Pd-Catalyzed Allylation of Aromatic Imidates

The efficient synthesis of allylated aromatic imidates has been studied. Different heterocycles have been used as the nucleophiles in the reactions. The starting material (various allyl carbonates and acetates) have been reacted with the aromatic imidates to form allylated compounds. Reaction conditions have been tested and optimized for product yield and purity.

14. Paulina Regan  
Sponsor: Catherine Dignam

Novel Tridentate P,N,O Ligands

In the past few decades, there has been an interest in the synthesis of tridentate ligands containing phosphorus, nitrogen and oxygen due to their ability to coordinate with a variety of metals. Research on complexes that contain P, N, O have been shown to have potential for use as catalysts, antibacterial, antiviral and antitumor agents. The focus of this research is to synthesize and characterize novel tridentate P, N, O ligands. These ligands will be generated via a condensation reaction between a diketone and a primary amine that contains a pendant phosphine group. Variations of this PNO ligand will be explored by varying the starting materials. Once characterized, it is the goal to test the reactivity of the ligand toward nickel and platinum.

15. Ross Scharen  
Sponsor: Jesse Marcum

Simple and Consistent Graphical User Interface Design to Complement Limitations of Human Awareness

In the software development field, the complexity of a user interface is quite difficult to manage for human recognition. The consistency in user interface design makes humans feel more comfortable when using the software. Our task, which utilizes a consistent Graphical User Interface (GUI), was to develop a medical clinic record software. There are many existing programs similar to ours, but most of them have complex GUIs. The software we designed simplifies the complex GUI features to support the limitations of human recognition. The new system includes most necessary functions that medical doctors currently use, but the GUI design is quite clear and simplified for all functions. The current system we have developed is well-designed and implemented so that it can actually be experimented with by medical specialists.

COMPUTER SCIENCE

16. Sara Hakkoum, Trevor Gorman, Christina Reid (alumna), Thomas McNulty (alumnus)  
Sponsor: Andrew Jung

Simple and Consistent Graphical User Interface Design to Complement Limitations of Human Awareness

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use, but the GUI design is quite clear and simplified for all functions. The current system we have developed is well-designed and implemented so that it can actually be experimented with by medical specialists.

17. Justin Kohl, Donel Portillo, Steve Dube  
Sponsor: Karen Druffel

Password Reuse Trends Among Students

Our research sets out to learn the extent of password reuse across multiple accounts through the use of surveys. We aim to find out if there is a broad tendency among students at Framingham State University of using passwords across multiple accounts, and whether or not they are using the same passwords for low-security sites and high-security sites. Many websites today are implementing password requirements that are stricter than ever before which makes remembering one’s password increasingly difficult. We predict that this trend leads to more and more people using the same passwords across multiple accounts, which in turn can lead to a domino effect, the breach of one password leading to the breach of other accounts that use the same password. We also seek to discover whether password manager software makes a user less likely to experience the domino effect of password reuse. This information is very relevant to web users today as well as website owners and designers, and it can help to improve account security at the individual level.

18. Johnathan Lamberson, Robert Coullahan, Kyle Cooper  
Sponsor: Karen Druffel

EMV Card Security and Awareness

Effective October 1st 2015 the transition from magnetic strip credit cards to chip enabled credit cards, called EMV cards, began. The EMV system is designed to reduce credit card fraud. This payment system is relatively new to the American consumer with many credit card companies still issuing credit cards equipped with this new technology. The way in which College Students would react to this new EMV technology and the level of confidence they have in EMV technology is the purpose of this study. To assist in answering this question a survey was conducted asking Framingham State students what they thought of the new EMV system. The participant will first be asked a series of questions in order to establish a knowledge baseline. The following section gives the participant a brief overview of this technology. The respondent would further be asked an additional set of questions to assess their level of comfort shopping with this new technology. The survey is designed to measure the students’ perception in terms of safety, versatility, and usability with the EMV system. Since the transition has only been in place since October 2015, this research should act as a stepping stone for future studies about consumer transition to EMV technologies in the United States.

19. Mark Morabito, Samir Leal, Gustavo Moraes, Ryan Ahearn  
Sponsor: Andrew Jung

Efficient Software Development for Enhancing Elementary Students’ Math Abilities

Educators are constantly using computers to bolster student understanding. This holds true especially for elementary mathematics where students must build a solid foundation for future success. To this end, there are many software tools available for stand-alone or web-based mathematical practice. However, in many cases, the software is rather generic and not very successful. Our approach is to follow the guidelines of the Massachusetts State Mathematics Curriculum Frameworks for grades K-4 and tailor our software to target these formative skills while applying the latest design research. Multiple children piloted our product as we continue to refine its design and implementation. The features of our software include video tutorials, randomized practice and quizzes, grade-level based tests with printable test reports, and a reward based on achievement. In the future, we hope to have our software be implemented in actual classrooms.
20. **Jayati Patel, Nathan Dentzau, Sherwyn Cooper, Evan Jensen, Parth Patel, Shivangi Misra**

*Sponsor: Andrew Jung*

**Real-Time Data Representation with Public Accessible Repository Using Web Interface**

A real-time data is the data that is delivered without any delay. This data is used to track the information from the collection. The public repository such as Massachusetts Bay Transportation Authority (MBTA) has the collection of the data that tracks the public transportation around Boston, Massachusetts. Our approach is to use the RESTful API provided by the MBTA to track real-time arrival times of buses, ferries and trains. The Web interface we developed uses a custom PHP MVC framework to gather JSON data that utilize RESTful API. AngularJS and MaterializeCSS are used to provide a fluid user interface that can accessed by phones, tablets and desktops. The current system we develop is well designed and developed. Thus it provides the quality of services to the public.

21. **Scott Peters, Robert Bernier, Doug Lobacki**

*Sponsor: Karen Druffel*

**Ecommerce Account Security**

Password strength and security is very important to companies today, especially for those who store important user data and payment information, such as ecommerce websites. Through our research, we are trying to determine how much security different companies implement to keep their user's data safe. In order to investigate the security that each ecommerce site offers, we have visited fifteen different popular ecommerce sites to create accounts, login to the accounts, and proceed to make a purchase. We recorded what each website requires for basic password requirements, such as capital letters, numbers, symbols, and security questions. We also looked at what advanced features each site offers, such as 2-step verification. When logging in to each site we recorded what is required beyond username and password if anything. Finally, we recorded if password reentry or another security measure is required to complete a purchase. When recording this data we also looked for sites that stored payment information and offered features that allow the user to bypass password entry, such as Amazon.com’s “Buy now with 1-Click”. Using this data we compared the amount of security features of each site to determine what companies offer better security for their users.

22. **Megan Fuller**

*Sponsor: Benjamin Alberti*

**Modern Myths of Biological Constants: Sex and Race in Body Identification**

The history of body identification is filled with practices that are now understood to be superstitious and irrational, based on the beliefs commonly held at the time. Today our modern perceptions of sex and race, developed by our social world, still impact what significance professionals in the fields of archaeology and forensic anthropology give to the dead, which can lead to very unscientific assumptions about who and what these people were. In many ways these prejudices have no place in academia and only serve to hinder the advancement of learning, but in others they bear a significance that cannot be overlooked: how can remains be respected without cultural attachments, and with what person or people should the responsibility lie? In some instances, to ignore cultural significance is to ignore the inherent humanity in how we view our dead.

23. **Mary Traintor**

*Sponsor: Daisy Ball*

**Prison Animal Programs through a Criminological Lens**

The bond between humankind and animals has progressed throughout the years; in some cases, human-animal relationships go beyond friendship and enter into the utilitarian realm. The phenomenon of
animals rehabilitating humans, and vice versa, can be found in prison environments in the form of prison animal programs (PAPs). The current research project is a criminological and sociological investigation of topics associated with PAPs, including the human-animal bond; animal therapy; prison rehabilitation and educational programs; public health and the criminal justice system; recidivism-reduction; mental health; and, sociology of the family. Methods employed include a comprehensive review of the literature, and in-depth interviews with two people involved with a PAP in Massachusetts. In exploring the somewhat unique phenomenon of PAPs, knowledge will be gained concerning the impacts of such programs on both the individual, and society. In the current climate of prison reform, conversations surrounding the effectiveness of various rehabilitation programs, including PAPs, are especially relevant.

ENGLISH

24. Nora Chan  
Sponsor: Evelyn Perry

The Diverse Young Adult: The Importance of Diversity and Cultural Identity in Young Adult Literature

Inspired by the #WeNeedDiverseBooks movement, this paper is an examination of the importance and power characters and their lives in books have for people of all ages, adding to the growing conversation about representation and identity. Diversity in Young Adult Literature should be considered integral to interpreting Young Adult texts. I investigate Young Adult Literature’s use of diversity in its characters, and try to prove that it is possible to have representation of all walks of life without stereotypical characters and struggles that are associated with a particular group of people. The texts used in this paper include what are considered to be classic Young Adult books, such as S.E. Hinton’s The Outsiders or J.D. Salinger’s The Catcher in the Rye, and contemporary Young Adult books such as Sherman Alexie’s The Absolute True Diary of a Part-Time Indian and Walter Dean Myer’s Monster. How the characters in each Young Adult text are able to cope and understand their own conflicts in the world is the focus of my analysis. Ultimately, how does diversity, or the absence of, shape the way readers of all ages interpret Young Adult texts and their characters? Diversity in Young Adult Literature is not simply a mode for teaching understanding and tolerance of people who are different, but a way for readers to also see the world, in the text and outside of it, and people that are different from themselves as complex. By featuring characters of diversity in Young Adult Literature, the distorted and misrepresented images that are too often demonstrated in the literature can begin to be corrected. Combined with topics that are often taboo to discuss, these minority characters show how diversity of not only race, but disability, sexuality, socioeconomic class, and gender, enhances the characterization, improves significance and meaning of the text to the reader, and succeeds in creating accurate reflections of adolescents’ lives, but also accurate views into another’s life and perspective other than your own.

FAHSION DESIGN AND RETAILING

25. Natalie Ahern, Lindsey Keady  
Sponsor: Virginia Noon

The Bikini

The bikini is a type of swimwear that can be made out of many different fabrics. Made in two pieces it is commonly made from spandex, nylon, polyester, and cotton knit fabric. The popular string bikini provides minimal coverage to the wearer and is usually made from two triangular shaped pieces of fabric placed over the breasts and usually held in place by straps. The bikini bottom sits below the hip bone and is made of thin side pieces of fabric that connect the triangular shaped fabric in the front to the rounded triangle in the back. According to the Classification System for Types of Dress (Roach-Higgins & Eicher, 1992), the bikini is a temporary body supplement that is a preshaped enclosure. The bikini can be traced back to ancient Greece. The modern bikini emerged during the 1940’s when French designer Jaques
Heim created a version of the bikini the first summer after WWII. American’s did not wear the bikini on beaches until the 1960s.

26. Tatiana Baymon, Thalia Kelly  
Sponsor: Virginia Noon

The Classic Trench Coat

The Trench Coat is a long belted raincoat, made of a waterproof fabric such as a heavy duty cotton, drill, or poplin. This coat originated in England in the 1850’s and was first worn as a military uniform. The Trench Coat was introduced to high fashion after being one of the signature pieces in the Burberry Collection, which is a British high-fashion brand. Although Burberry is known for creating the first version of this high fashion garment, many designers have gone on to create versions that accommodate a variety of consumer needs. Today the trench coat is a staple piece that is worn all over the world.

27. Kiana Brown, Anne Curley  
Sponsor: Virginia Noon

Adore the Fedora

Fedoras are hats originally made out of felt with a slightly curved brim that is typically 2.5 inches in width. The top of the fedora has a crown, which is typically 4-5 inches high with a dent in the middle. Fedoras are usually worn as outerwear and serve as a stylish accessory. Classic looks of the fedora have a brown or black band around the perimeter of the crown. Fedoras are pressure fastened attachments to the body following the Classification System for Types of Dress (Roach-Higgins & Eicher, 1992). Fedoras gained popularity in the United States and Europe after the hat was worn by the main character Madam Fedora, in the 1882 play, Fedora. In the 1920s the fedora was popular amongst prohibition gangsters. In the 1950s the fedora became a standard piece in men’s dress. Today fedoras are worn by citizens around the world, ranging from United States to Ecuador. The fedora is a part of national dress for a small group of the population in Ecuador. Fedoras can be considered world fashion. Currently the fedora for both men and women is a global fashion trend. In the United States particularly, the Fedora has evolved from a fashion accessory that once displayed social status, to a casual wear add on piece.

28. Bridget Chafe, Lanna Mosca, Camilla Hart, Olivia Joubert  
Sponsor: Ruirui Zhang

Facing the Facts: The Northface Consumer

The purpose of this study was to investigate consumers’ knowledge and interests towards the brand The Northface. The data was collected through in-depth interview. The study applied consumer decision making process and Fishbein attitude model to develop the instrument for this study. The application of this study addresses the consumer behavior issues regarding to consumers’ shopping methods, the relationships with the brand, consumer engagement, and social media usage behaviors.

29. Madore Colton, Elise Arsenault  
Sponsor: Virginia Noon

Chambray: Forever Timeless

Chambray is a lightweight woven fabric named after the French town of Cambrai, a small town in northern France. Chambray is woven with colored warp and white filling yarns. The warp of the fabric is dyed blue while the weft is dyed white or gray which gives the look of a casual appearance, similar to denim or khaki. The original chambray fabric was made of linen but as the textile industry rose in the United States, cotton became the main fabric. Chambray is commonly found in button-down shirts today and is staple to the quintessential American style. The fabric was originally used for a number of purposes such as lace, needlework, fine shirts, sunbonnets, and handkerchiefs during the Middle Ages. It was even a popular fashion piece in Elizabethan England for stiff cambric ruffs, neckwear, cuffs for clerical, legal and academic dress. As years went on and the textile industry flourished to the United States, chambray became a popular fabric which was used for military purposes as it was lightweight and durable and was
often paired with denim jeans and a white cap. It was then that chambray would become the quintessential American look. Male American movie icons such as Marlon Brando, Steve McQueen and James Dean also helped popularize the look during the 1950s and 1960s. Today, chambray remains a popular fabric which is used for shirts, dresses and linens and is practically timeless.

30. Geraldine Cortez  
*Sponsor: Hae Won Ju*

**Rose Boutique Store Creation: Planning merchandise assortment and visual merchandising**

The purpose of this project was to further comprehend the fundamental principles and guidelines on behalf of constructing a retail store. The researcher decided to construct a boutique store in an available site of 162 Spring Street in West Roxbury, MA. A retail store named Rose Boutique was created to correlate the store complexion given with the luxurious items that the store will offer. The boutique store will offer luxurious dresses, stilettos, and jewelry to the target customers. The next stage was to create a business plan, merchandising assortment plan, and visual merchandise plan to utilize various retail strategies. The boutique visual merchandising was visually presented by utilizing Mockshop, a visual merchandising software to give a visual context of the store layout. The store layout will have a naturalistic and garden-like theme in which it will be displayed in the interior, exterior, and within window displays. Overall, by providing outstanding visual layout, the main goal would be to make customers establish a wonderful shopping experience at Rose Boutique retail store. This process will help Rose Boutique gain customer loyalty inside and outside West Roxbury district.

31. Kaitlin Delaney, Brianna Benvenuti, Erika Simon  
*Sponsor: Ruirui Zhang*

**Baby Boomers; Chico’s**

The shopping attitudes and behaviors of the Baby Boomer Generation will be represented throughout the research provided. We chose the brand “Chico’s” to analyze the consumers relationship with a specific brand name.

32. Ronica Desruisseaux, Ricardo Damas  
*Sponsor: Virginia Noon*

**You Know the Drill: Buy Some Espadrilles**

Espadrilles are a type of footwear that has been worn for thousands of years. Dating back to the fourteenth century originating in Catalonia located between France and Spain, espadrilles were a favorable shoe for a majority of people. The footwear is usually worn in the warmer months and it is a lightweight shoe and is not suitable for cold harsh winter weather. The espadrille is made from a jute base or sole, and cotton fabric is sewn over the sole. The footwear was first worn by miners and house maids in Spain then became popular footwear for the general population. Jute is an eco-friendly jute product which helps with the shoes popularity. Espadrilles are a contemporary item of dress that has been culturally authenticated in the United States. Today espadrilles come in many different styles including wedge heels. There are even designer versions where the jute sole is replaced with other materials that resemble rope. Moccasins are closely related to espadrilles along with other cotton shoes worn throughout Asia. Many favor this style of shoe because it gives the casual dress down effect.

33. Raysam Donkok-Halm  
*Sponsor: Virginia Noon*

**The Kente: Cloth of Kings**

In West Africa a certain fabric has captured the attention of the world. This fabric is called the Kente cloth and it is a traditional hand woven cloth that originated among the Ashante in Southern Ghana. Traditionally it is worn in a wrapped toga like style.
34. Raphaela Esposito, Samantha Robinson, India Ward  
Sponsor: Ruirui Zhang

**J.Crew Consumer Analysis for Store Implementation**

The purpose of this study was to determine the best way that J.Crew can enhance their retail strategic planning, optimization, customer engagement, and building customer loyalty. We achieved this goal by conducting twelve in depth interviews with J.Crew shoppers. We examined different aspects of the participants' life such as their job and life attitudes, their purchasing behaviors, and their loyalty towards J.Crew. By bringing all participants answers together, we were able to analyze different things that they expected from the brand and what the brand could potentially do better.

35. Rachel Flaherty  
Sponsor: Seunghye Cho

**Adaptive Wear Research**

The purpose of this research is to understand the needs and wants of those restrained to a wheelchair and design adaptive clothing for everyday wear. This research was specifically targeted towards females with Rett Syndrome and similar disorders. The methodology used was a six question survey taken by twenty individuals who have spent time in a wheelchair or who have been care takers to those in wheelchairs. Ten respondents are care takers for individuals with Rett Syndrome. Research of adaptive apparel online and interviews with caretakers of patients in wheelchairs were also examined as well as personal experience. Wheelchair bound individuals were found to have a hard time dressing or being dressed as well as clothes not fitting their size and lacking style. Most respondents answered that style and fit were the biggest issues. They also answered that they often struggle to get dressed or dress their patient. Majority of respondents said that the individual they care for have below 50% range of motion and responded that cotton is the preferred fabric. This information was compiled to create an ensemble that satisfy the target customer’s wants and needs found through the research. The designs incorporate appropriate fabrics that are comfortable and designs that are stylish and age appropriate for the individual. These designs are meant to provide the most comfort while sitting in a chair or wheelchair while. They are also designed to be easily put on or taken off by the individual or their caretaker. The designs take into consideration all wheelchair bound individuals but have specific features that are adaptive to Rett Syndrome patients. These designs are made to reflect the target customer and what they are looking for in wheelchair adaptive wear.

36. Brinsley Fonseca, Sarah Buotte  
Sponsor: Virginia Noon

**Blazin' Birkenstocks**

Birkenstocks are a type of sandal with a contoured cork filled sole and thick leather wrappings. The sandals originated in Hammersbach, Germany in 1774 by Johann Adam Birkenstock. They traveled to the United States in 1966 because of Margot Fraser. She was a German woman who had moved to the United States who had worn Birkenstocks in her native country. The sandals helped the severe foot pain she had experienced for many years and brought them back to the United States where she started to sell them from her home. The sandals are made from cork, rubber, latex, leather, and jute. Birkenstocks were one of the first shoe manufacturers worldwide to produce almost exclusively water soluble and solvent free adhesives. The company wanted to create a shoe that was environmentally friendly. Today 95% of the adhesives they use to make the shoes are environment friendly which helps to reduce the impact that solvents have on the environment. Birkenstocks were designed to fit the natural form of the foot in order to allow freedom of movement and all around support. The foot bed of the Birkenstock distributes the weight of the body evenly for comfort and wellbeing.
37. **Allison Kittredge**  
*Sponsor: Virginia Noon*

**Harris Tweed**

A textile made from harvested, spun, dyed and hand woven wool in the outer islands of Scotland, Harris Tweed became distinguished from other tweeds in the Industrial Revolution when weavers continued to produce the fabric with hand looms. It originated as a natural byproduct of sheep farming in Scotland’s outer islands in the 18th century. The islands are known as the Outer Hebrides and they continue to hand produce massive quantities of the fabric. It was made popular in Europe by Queen Victoria when she started to wear the textile for hunting. It spread globally from there and is now understood to be characteristic of the quiet intellectual and classic fashion sense. Brooks Brothers was the first clothing company in the United States to sell Harris Tweed, in 1909. Despite originating in Scotland, Harris Tweed only has connotations of Scottish heritage if woven into traditional tartan patterns. Recently there has been more demand for the cloth thanks to a new marketing strategy from the Harris Tweed Authority. The BBC series Doctor Who features the eleventh doctor in Harris Tweed which has led to direct demands from U.S. fans. Harris Tweed remains the only fabric to be handwoven for commercial quantities. The Scottish tweed industry continues to sell tweeds of innovative, nontraditional designs to international fashion houses such as Chanel, Prada, Louis Vuitton, and Dries van Noten. The work of Vivienne Westwood in Harris Tweed perhaps best encapsulates how British designers continue to be inspired by the visual appeal, versatility and strong cultural associations of tweed.

38. **Alyssa Lee, Briana Gilbert, Kianna Ostrander, Cerridwen Alwyn**  
*Sponsor: Ruirui Zhang*

**Uniqlo**

A research project based on in-depth interviews was conducted in pursuit of behavioral traits of company consumers. Sixteen interviews took place in the New England area from real customers of the fast fashion company Uniqlo.

39. **Margaret Looney, Kayla Dutcher, Katherine Callahan, Lynn Sirchia**  
*Sponsor: Ruirui Zhang*

**Nike Men's Wear: Consumer Behavior**

Observing various ages ranging from 20-50, we have come to many conclusions on male shopping and spending habits with the retailer Nike. Our research instrument included twelve in depth interviews completed by our friends and family. We studied the similarities and differences of the consumers’ behavior, and what is taken into consideration, before and after purchasing from Nike. We also extended our investigation for how these men affect the brand, and brand image and their views on the quality, company, and customer service of Nike.

40. **Olivia Mangue**  
*Sponsor: Virginia Noon*

**The Best of the Vests**

The waistcoat is a popular menswear item also known as the vest. It is a garment with buttons along the front, usually worn as part of a formal suit. The piece first came about in 18th century England, and quickly became popular in the United States during the colonial era. Now it is a well-known garment worn by men as part of the classic three piece suit style not only in the United States but in the rest of the world as well. Despite its British origins however, the waistcoat is not considered part of the national dress of England. The waistcoat can be considered world dress because it has been adapted in several ways throughout the world. The waistcoat can now be seen in knitted forms known as sweater vests or even fur lined vests making it a multi-faceted item that both men and women can enjoy. It goes in and out of fashion, and is currently trending as suede waistcoats, reminiscent of the cowboy era. The classic waistcoat has stayed quite the same over the years despite all the changing trends, and even as different styles emerge the fitted front-buttoned style remained constant.
41. **Marissa Parks, Rachel Noel**  
**Sponsor: Virginia Noon**

**Ugg Boots**

The Ugg boot was originally made for warmth and practicality rather than attractiveness. It originated in Australia and New Zealand, and was originally intended for surfers to wear to keep their feet warm after being in the cold water. It is described as a unisex style of sheepskin boots. They were first popular in Europe. Ugg boots are worn universally around the world and are worn by many different people, some people wear them for comfort and some wear them for fashion purposes.

42. **Colleen Quinton, Rachel Bean**  
**Sponsor: Virginia Noon**

**The Famous Parka Jacket**

The parka jacket is a long jacket with fur hood which sometimes has fur lining for warmth. Some parka jackets have a fishtail hem shaped in a triangle with draw strings to tighten the jacket at the bottom giving it a better fit. Additional drawstrings at the waist and wrists of the jacket can be pulled tight to keep out the cold. The parka jacket comes in many different styles providing varying degrees of warmth. Traditionally the parka jacket’s warmth came from goose feather insulation and animal fur trim and lining. Today’s version of the parka can be made of cotton or a polyester blend outer shell fabric with faux fur on the hood. The parka jacket came from Greenlandic Inuit Eskimo islands and arrived to the U.S. in the 1940s. It played a role in history as a military jacket in WWII to protect the soldiers from freezing temperatures. The parka jacket became widely popular during the late 1970s through mid 1980s as a school jacket. The jacket is still worn today all around the world during all seasons throughout the year.

43. **Shae Riley, Drew Peterson**  
**Sponsor: Virginia Noon**

**To Dye For**

Tie dye is a way to create patterns on textiles by tying parts of the fabric to shield it from the dye. The dyeing technique originated in India, Japan, and Africa and is usually taught through family generations. The earliest form of tie dye was in India and it is called bandhani. In the US, tie dyeing is very popular for all ages. This method of dyeing is very popular around the world, and is usually involved in trending fashion some way or another. In the United States, both men and women started to incorporate tie dye into clothing after the Vietnam War. This is an example of cultural authentication because a dyeing technique from another region of the world was incorporated into western fashion in the United States. The dyeing process can be applied to both finished garments and large pieces of fabric which can then be made into clothing. Tie dye can be considered world dress since it is common form of dress among many ethnic groups and continues to influences fashion throughout the world.

44. **Nicole Santostefano, Tresja Belton**  
**Sponsor: Virginia Noon**

**No Socks with Your Moccs**

Moccasins are a traditional leather slide on shoe worn by the indigenous native people during the 19th century. The Moccasin was originally made to help protect the feet from harsh prairie grasses, sharp rocks, cacti in the drier regions as well as to maintain comfort. The shoe itself is constructed with a single piece of leather that wraps around beneath the foot and joined together with a closure where two pieces of fabric would meet and be sewed together for a gathered texture. The top of the shoe is made in a variety textures, some leather and some fabric. Native Americans traditionally made the moccasins of deerskin. Tribes took pride in the adorning the moccasin with imported decorative ornaments providing cultural meaning. The Minnetonka Moccasins brand was created in Minnesota as an outreach for tourists who wanted a Native American souvenir from the western parts of the United States. In the 70s and 80s in the United States, Moccasins became an apart of the hipster trend and were worn by both men and
women. Over time and more recently around the world, individuals have been wearing the moccasin for comfort. Different brands such as UGG Australia and Nine West have created a moccasin that is almost considered to be a slipper or a house shoe.

45. Kimberly Slack, Molly Fennessey  Sponsor: Virginia Noon

The Poncho

The poncho is a cloak like overcoat with wide sleeves that acts as second skin to protect the body from the elements. The garment is a body supplement that is a suspended enclosure and is draped over the head. The poncho originates in Argentina and is now worn by people all across the word. There have been many adoptions of this style taken from the ingenious people in the Andes Mountains. Traditional ponchos were hand woven from different spun yarns depending on the climate of the region. Ponchos were woven by women and worn only by men. As the poncho spread across South America, different styles with variations of color, pattern and silhouette arose representing the region of the wearer. Ponchos are very practical and had many uses including protection from the cold and wind, a pillow or a bed for sleeping, and as a shield and shelter from bad weather. It is unclear how the poncho reached the United States but it became a popular item of dress during the 1960’s and 1970’s during the rise of the natural look emphasized by the hippie style.

46. Asha Suleiman  Sponsor: Seunghye Cho

Modern Modesty

Muslim women adhering to their religious values wear free fitted style of clothing that covers the body from head to toe just leaving the palm, face, and feet exposed with the waist accentuation. Emulating these requirements has been in strife with the modern element. The purpose of this research is to design a modest and stylish collection targeting Muslim women. In order to understand the target markets, a six-question interview survey was conducted for twenty female Muslim individuals between the ages of 28 to 38 years old. This group of women participated on limitations when shopping, the definition of modesty, expectations of the lines they buy, brands they buy and what silhouettes they look for. Dolce & Gabbana’s new collection for Muslim women was analyzed for this research. From the analysis of the interview surveys, the researcher found out that the target market longs for, finding trendy modesty garments without going on a scavenger hunt to meet the looks. Main concerns were the fit of clothes and the availability of various colors as they wanted to escape from the consistent black that has been the main color of Muslim women’s garments. The designer created a total of ten garments based on the information obtained from the interviews. Designs in this collection use colors such as Buttercup and Snooker blue. In order to highlight waistline, the bell-shaped silhouette was modified and then used to create the primary frame style of the garments. Garments were constructed by using bold pattern cutting methods, laser cut details, darts, and overlapping seams to create interest and provide an edge of being modern. By pairing these pieces in various approaches, the designer was able to create a collection with a modern modesty. Being modesty doesn’t mean boring and unfashionable.

47. Athena Venetsanakos, Lisa Cannavino  Sponsor: Virginia Noon

Leaping Leotards: The History of the Leotard

A leotard is a close fitting one piece garment, made of stretchy fabric. It is a torso-covering garment that is stepped into and pulled onto the body. The leotard encompasses a range of styles including sleeveless, long sleeves, short sleeves, high necks, low back, straps, and lace inserts. According to the Classification System for Types of Dress (Roach-Higgens & Eicher, 1992), leotards are temporary body supplements and are preshapí enclosures. The leotard was designed for two specific purposes. The first is to enable
the body to move freely without getting caught in anything and the second was to show off a man's well-developed muscles while performing. The leotard is named after its French originator, Jules Leotard (1842-1870), who designed the garment for trapeze performance. The garment was originally called a maillot, which means “tight-fitting clothing” in French. Today, leotards are typically made of Lycra, spandex, and cotton blend knit fabrics. High performance stretch and moisture-wicking materials continue to enhance the versatility of the leotard. It has crossed over into many other performing arts and sports today including, dance, ice skating, gymnastics, weightlifting, boxing, and wrestling. The leotard is worn by athletes who require precision movement and those who wish to showcase a muscular form. The world of fashion has taken this item of dress and transformed it into an enhancement to everyday dress.

48. Erin Watts, Anthony Comeau  Sponsor: Virginia Noon

BOLD & FREE: Boho Chic

Bohemian dress is loose clothing made from cotton and linen fabric in bright colors and bold patterns. The style originated from European and American “gypsies.” Bohemian dress was a two piece ensemble with separate shirts and skirts. Kerchiefs or scarfs were worn to cover a woman's hair along with elaborate jewelry. Tops and bottoms were laundered separately demarking the top with a sense of purity and the bottom with impurity. These garments can be classified as body supplements and are pre-shaped enclosures and the headscarves are wrapped enclosures according to the Classification System for Types of Dress (Roach-Higgins & Elcher, 1992). This style is known as boho chic, hippie style, aesthetic dress, or romantic. Bohemian dress is often worn in the warmer months during the festival season. This item of dress was important to those looking to stand out from society and escape the social norms of dress and an exotic alternative to the accepted fashions.

49. Brittany Weygand, Lindsay Ferreirra  Sponsor: Virginia Noon

A Tight Squeeze

A corset is a garment or accessory worn around the midsection that constricts the body in some way. The purpose of the corset is to create an hourglass look to the body. The corset originated in Italy and was introduced by Catherine de Medici into France in the 1500s, where the women of the French Court embraced it. Corsets were originally made from stiff canvas material and reinforced vertically by stays made from iron and whale bone. Health risks arose during the growth of the corset. Binding of the midsection caused indigestion and a weakened back. The popularity of a slim body caused it to become a fashion item in the United States in the 1940’s. In recent history, the corset re-emerged in America after Madonna’s Blonde Ambition Tour in 1993. American pop culture made a big contribution to the popularity of corsets. Today, corsets have become waist trainers, which are worn under clothing to create the hourglass look. Wedding gowns, prom dresses and even some shirts have been designed to create the slimming effect.

50. Lucy White, Samantha Robinson  Sponsor: Hae Won Ju

Las Vegas MAGIC Trade Show

The MAGIC Trade Show in Las Vegas is one of the largest international trade show in the United States. Our experiences can be connected to what we learned from various classes in the fashion design and retailing program including Fashion Promotion, Designer to Consumer, Theory & Industry Application, and Planning, Policies, and Implementation. In our presentation, we outlined these connections through a poster presentation. Examples of the freebees and look books we acquired talking to the vendors on location. Images and experiences from the trade show floor are shown and talked about as well as written descriptions of the events and tactics used by the vendors to bring in buyers and our experiences at the seminars we attended.
51. Lucy White, Laura Dellorco, Ann Curley  

Kate Spade: An Untapped Market

Kate Spade is a luxury brand that sells high-end bags, purses, accessories, and some clothing to women aged 25-35 who are working in an office or business setting and aiming for success without losing their sense of self in their business attire. The group conducted a research process which collected data using in-depth interviews with a total of 12 participants. We recorded what each participant said, and then recorded their key words into an excel sheet for further coding which will be interpreted into information needed to complete an in-depth paper about the company’s target customer and how they can be reached. Our research will be used to determine communication strategy recommendation that could be used to increase the customers’ engagement with the brand, increase customer loyalty, and to create a SWOT analysis for the brand.

52. Justine Dorsi  

Effects of retail environments on consumer shopping behavior

The purpose of this study was to examine the effect of retail environment (i.e., store atmosphere, number of employees) on consumers’ preference and purchase intention. A 2 X 2 experimental study was developed by creating four mock cosmetic stores using Sketchup software, varying store atmosphere which consisted of color and patterns of store interior, and presence of sales associates (one vs. five). Data was collected at two different malls in Massachusetts from female consumers and analyzed using Excel. Results and implications were also discussed in the presentation.

53. Carly Rettig

Virtual Styling Services; Are they as beneficial as the traditional Personal Stylist?

This study was designed to examine consumers’ use of online styling services (e.g., Stitch Fix, Stylit, and Style Me Perfect) and its influence on consumers' shopping behavior (i.e., amount of purchase, purchase frequency), comparing online styling services to the original personal styling services. Demographic and psychographic characteristics of consumers who use online styling services were also profiled. In the survey, participants were asked if they have experience of using online styling services and original personal styling services. Their perceptions of using and willingness to use personal styling services were also asked. Data was collected through surveys given to female consumers and analyzed using excel. Results and implications were also discussed.

HISTORY

54. Chelsea Hathaway  

Absence Makes the Heart Grow Fonder: Wives in North America, 1750-1800

Wives of the American men who traveled for work in the era of the American Revolution, particularly politics, were usually left at home to tend to the family business or farm and raise the children. While also managing their roles as mothers and their domestic affairs as wives, they were seen as partners with their husbands, but simultaneously subservient because the male was most commonly seen as the head of household. However, in letter correspondence between husband and wife, the separation of spheres and the development of specific gender roles were defined in the women’s defiance to command her own authority inside the house. By using historians’ theoretical terms for women’s roles from the mid to late eighteenth century – republican motherhood, separation of spheres, and the cult of domesticity – this essay examines the division between men and women’s roles through Deborah Franklin, Abigail Adams and Rebecca Faulkner Foster and the correspondence they maintained with their respective husbands.
55. **Colleen Jenkins**  
*Sponsor: Lori Bihler*

**History and technology: Traditional meets current methods**

The presentation is based on my Senior Honors thesis. It argues that the digital age has changed the field of humanities in secondary education and therefore has made lecturing in classrooms dangerous if not combined with discussion. I challenge history teachers to embrace new technological opportunities while also acknowledging the prime reasons for resistance. It promotes analytical and critical thinking skills being the focus of secondary social studies classes in order to properly prepare students for the world after graduation.

**NURSING**

56. **Ana Rita De Sena, Anadelfia Hernandez, Simon Muroki**  
*Sponsor: Ruth Remington*

**Nursing Turnover**

Nurse turnover is a serious problem, especially given the increased need for professional medical care because of demographic changes, and puts severe pressure on health-care management staff. In order to meet future requirements for nursing staff, it is of utmost importance to empirically study their intention to leave either their department or hospital, and to identify the determinants of these various intentions to leave. The nurse plays a vital role in patient care. Many nurses will leave facility if they feel that they do not have adequate staffing, adequate competency training, or believe that their concerns are not being heard. The hospital leaders should be concerned with nurse turnover rate, a lot of knowledge is leaving that the facility may not be able to replace. The aim of the study is to: Identify the cause of nurse turnover in health care institutions, identify common issues and problems on the nurse turnover rate and cost, identify the perceptions of nurses of the management of the turnover of nursing staff in their operational units and identify relationship of leadership support and value of patient outcomes between nurses and nurse managers and nurses’ job satisfaction and turnover intent.

57. **Bryan Hernandez, Maria Markouskaya**  
*Sponsor: Ruth Remington*

**Insulin Pen - Increasing Compliance**

The purpose for this research is to prove that with using pens for insulin delivery it can increase patient compliance and improve glycemic control.

58. **Afanwi Mbonchom, Kelly Miller, Stephen Muchiri**  
*Sponsor: Ruth Remington*

**Nursing staff ratios and quality of care in long term care**

The aim of studies in the review of the research articles was to analyze findings from longitudinal and cross sectional studies examining the impact of nurse staffing on QOC outcomes in nursing homes.

59. **Michele McCullough, Allen Chan**  
*Sponsor: Ruth Remington*

**Fatigue on Nurses**

Across the nation, nurses who are baby boomers are retiring, more nursing jobs are available, and nursing schools are not producing enough nurses to replenishing the job pool. The purpose of this presentation is to explore the effects of fatigue on the current nurses who are stretching themselves thin to cover shifts and find a solution for nurses to practice safely. In order to conduct our research, five peer reviewed articles were selected and thoroughly analyzed to find a common theme on fatigue. Based on the research, fatigue on nurses can affect their job performance and safety for both the patient and their
safety. Studies are still needed to explore the relationship between job burnout/change of profession and fatigue.

60. Regina Muyuela  
Sponsor: Shellie Simons

Nursing Leadership Role in Preventing CAUTI

The purpose of this integrative review is to appraise the literature that confronts leaders in their search for the solution in eliminating or reducing the incidence if CAUTI. The methods used to handle barriers to the success of implementing the program were evaluated. Results found in literature proved that supports from nursing leaders are vital to the success of this nurse-driven initiative. It also confirms that using evidence-based practice intervention helps in improving the outcome in the care of the patients.

61. Marcia Parisi, Soraia DeAndrade, Elizabeth Owusu  
Sponsor: Ruth Remington

Opioid-induced Constipation (OIC)

Constipation is a common side effect of opioids. Opioid-induced constipation (OIC) is often poorly managed, which can cause pain and discomfort, increase hospital stays, and impact quality of life. The purpose of this literature review was to determine evidence-based treatments for OIC. Review of the literature shows that treating OIC while utilizing the guidance of a bowel protocol is shown to have better outcomes. Evidence-based guidelines outline treatment protocols. Initial treatments include increasing fluid, fiber, and exercise. Algorithms are outlined based on bowel function for the use of laxatives such as stool softeners, stimulants, and osmotic agents. When laxatives are insufficient, protocols include the use of newer medications such as peripherally acting opioid antagonists and chloride channel activators. Prevention of OIC benefits patients by eliminating unnecessary suffering and re/hospitalization. More research needs to be done to identify an optimal bowel protocol.

62. Michelle Rizza, Trinita Harman, Matthew Austin  
Sponsor: Ruth Remington

Violence in the Emergency Room

Violence in the emergency room (ER) against nurses is a common and significant global problem. Occupational violence is detrimental to nurses, patients and their families, and the quality and cost of patient care.

PSYCHOLOGY

95. Allison Ferrigno  
Sponsor: Pamela Ludemann

College Students’ Perceptions of Students with Learning Disabilities and Classroom Procedures

A variety of treatments have been tested to help ease the learning process of young students with many variations of learning disabilities. This study investigated college students’ perspectives of how children with learning disabilities are treated in classrooms. A total of 174 undergraduates at a small northeastern state university completed a survey regarding their initial thoughts of one of six scenarios involving a student with a learning disability in a classroom. Students completed a series of scales about their education views, academic self-esteem, academic self-confidence as well as a demographic section. Results suggest that disruptive students have overall lower academic self-esteem than cooperative students and participants with Psychology or Education backgrounds perceive students with learning disabilities more positively than non-majors.
The Establishment and Hindrance of Brand Loyalty Through Exposure to Company Ethics

The establishment of brand loyalty in consumers is influenced by many factors such as brand qualities, exposure to the brand, and social influences. Few studies have assessed the extent to which a company’s ethics affects consumer loyalty. This study examined consumer preferences and loyalty given access to information of company ethics. A total of 120 undergraduates at a small northeastern state university completed a survey regarding their initial thoughts about a popular brand. Students were then presented with one of four fictitious scenarios about the given brand regarding its ethical or unethical practice and rated scales. It was hypothesized that the degree of brand loyalty effects would predict participants’ purchase intentions, justice-related views, shopping impulsivity, and proneness to feeling guilt and shame. Findings of this study yield implications to the importance of consumer beliefs, emotions, and habits in relation to brand loyalty.

An Assessment on the Use of Clothing in Forming Impressions

First impressions are made quickly based immediately attributable physical features of the person. Previous findings indicated that clothing and accessories, such as make-up, all form significantly affect judgment. Participants were 151 female college students, 18 to 39 years of age, who were presented with models wearing one of three levels of make-up and depicted in one of two contexts. It was found that women with heavy make-up were perceived more negatively in terms of attractiveness, femininity, masculinity, morality, and some personality traits than some women presented as wearing light and moderate levels of make-up.

Sociology

Illicit Drug Use: What Prevents Juveniles from Engaging in this Behavior?

Purpose: The purpose of this study is to research whether social bonds prevent juveniles from using illicit drugs. Hirschi’s Social Bonding Theory states that there are four elements that contribute to forming strong social bonds: commitment, attachment, involvement, and belief. Previous research on Social Bonding Theory has found that these four elements prevent juveniles from engaging in delinquent behaviors. Methods: This study used data from Monitoring the Future (MTF 2006): a survey given to 8th, 10th, and 12th graders that asks about students’ daily behaviors and attitudes towards subjects, such as drug use. The data will be analyzed by examining student responses to specific questions relating to commitment, attachment, involvement, and belief. Results: The researchers expect to find that juveniles with strong social bonds will be less likely to use illicit drugs. Juveniles who are committed to schoolwork, attached to positive influences, involved in school activities, and have strong moral beliefs will be less likely to participate in illicit drug use. Conclusion: Juveniles will not use illicit drugs through social bonding based on their attachment, commitment, involvement, and belief ideologies. The expected results would provide evidence that to prevent illicit drug use, prevention programs that ensure the creation of social bonds are necessary. If the prevention program provides juveniles access to other people or activities that help them create strong bonds then they will not engage in illicit drug use.
99. Clifford Brown, Lauren Laflamme, Stephanie Scanlon, Kayla Brice
   Sponsor: Xavier Guadalupe-Diaz

Walking Away From the Crowd: A Study of Adolescent Substance Abuse

We believe social control theory and social learning theory affect how 12th grade students overall behave and learn self-control. This study examines a variety of indicators that may affect adolescents. It will help us to determine whether adolescents would engage in or avoid substance abuse. Our research was developed using the data sets compiled by the Monitoring the Future: a Continuing Study of American Youth Codebook. We did a secondary analysis from this cross-sectional study collected in 2006 at the University of Michigan. The MTF codebook uses a multistage area probability sample design which helps to make our prediction that family influence, educational involvement, workforce participation, and self-perception will positively correlate with 12th graders substance abuse. Our model tests social control theory and social learning theory to see what factors contribute to adolescents indulgence in behavior recognized as antisocial, such as abusing drugs. Looking at these risk factors is crucially significant, given the recent spike in drug use activity, and the heroin epidemic across the nation. Knowing how these events affect adolescents is crucial to our future since these children hold the future in their hands.

100. Cicely Menter, Kyle Langmeyer, Amie Serino, Rosemary Talbot
   Sponsor: Vincent Ferraro

Gender Roles Impacting Health Issues After Victimization

Purpose: This research identifies the divide between gender roles and their potential impact on health issues in relation to victimization. It focuses on mental and physical health issues in relation to gender stereotypes, dating violence, and sexual orientation. More specifically, how does gender result in different health effects after victimization? This research includes the hypotheses of gender equality and differential response to help show gender may influence health issues and the impacts of victimization. Methods: The National Crime Victimization Survey (NCVS) from 2010 is a dataset comprised of self-reported data from individuals who have experienced victimization. This research is cross-sectional and relies on a subset of the NCVS covering 1,747 victims from the fourth quarter of 2010, allowing bivariate and multivariate analyses of the researchers’ subject. Results: The gender equality hypothesis supports situational response by showing how male dominance may impact females being the victim more often. Differential vulnerability hypothesis states males and females are victimized by scenario and females experience higher depression and stress as a result. These hypotheses explain how one’s gender and situational responses may affect their health. Conclusion: The differential response and gender equality hypotheses will show connections between genders, reactions, and health outcomes in relation to victimization. Psychiatric services can better understand how victimization impacts one’s health and treat these problems effectively.

101. Crayton Miller, Olivia DiFranco, Melanie Hain, Kim Micciche, Michelle Schoonover
   Sponsor: Ke Li

Victims of Violence and Their Help-Seeking Practice in the United States

In 2014, over 3 million individuals fell victim to violent crimes in the United States and more than 10.4 million households that were targeted by offenders of property crimes. Meanwhile, criminal victimization has been continuously underreported: approximately 54% of those criminally victimized did not report their experiences victimization to police between 2005 and 2014. Although crime rates have been declining in the United States, this does not excuse the fact that criminal victimization adversely affects millions of people and households. Therefore, it is critical for us to gain a better understanding of who have been affected by violent and/or property crimes and their reactions to their criminal victimization. In
this study, we draw on data from the National Crime Victimization Survey to address the question of how social class, race, and gender affect criminal victimization, police-reporting practice, and victims' efforts to seek medical treatment, respectively. In our research we found there is a relationship between respondent's social class and gender and experience of victimization for white respondents, but not for black respondents or members of other races. There is also a relationship between respondent's social class and experience of criminal victimization that can be seen in female respondents more than it can for male respondents. The data also revealed a relationship between respondent's race and experience of criminal victimization for female respondents, but not for male respondents. There is a relationship between respondent's race and experience of property victimization for upper and middle-class respondents exclusively, but when race was replaced with gender only the middle class had a significant relationship with property crime. Lastly, there is a relationship between the respondent's gender and reporting the victimization to the police for black respondents, but not for white respondents or respondents of other racial backgrounds. In this end, this study deepens our understanding of the connections among socio-demographic characteristics, criminal victimization, and post-victimization outreach. Moreover, it facilitates law enforcement agencies, medical professionals, and social activists to better help the social groups that have been most adversely affected by criminal victimization.

102. Madelyn Salice, Julie Manning
   Sponsor: Ke Li

Sexual Experiences and Mental Health: A Survey-Based Study of American Adolescents

How do romance and sexuality affect adolescents’ mental health? Despite the significance of this question, we have only limited knowledge of how adolescents’ sexual relationships and activities impact on their mental health. In this regard, prior research is inconclusive as to in what ways and to what extent intimate relationships and sexual experiences influence young people’s emotional and psychological wellbeing. In light of the debates in the field, we use data from the National Longitudinal Study of Adolescent Health (AddHealth) to address two research questions: (1) how does the development of a romantic relationship with a peer affect one’s mental health? (2) Whether and how does sexual onset--defined as the age when an individual starts having sex for the first time--shape her or his emotional and psychological wellbeing? We find that for female respondents there is statistically significant association between relationship types and mental health outcomes. For male respondents, there is a similar statistically significant association between sexual onset and mental health outcomes. For those who say their religious faith is important, there is association between sexual onset and mental health. Ultimately, we aim to add depth to our understandings of the linkage between young people’s sexual experiences and their mental health. In so doing, we hope to help young people, parents, educators and policymakers in their decision-making to build a healthier society over time.

103. Alyxis Welch, Chris Woolhiser, Gracie Macedo, Tashali Little, Nikera Jordan
   Sponsor: Ke Li

Drug and Alcohol Use among U.S. College Students: What Drives Them into Risky Behaviors?

Alcohol and drug use is a widely anticipated practice among college students. In this study, we intend to explore the question of what prompts college students to use alcohol and drugs. So far, few studies have simultaneously tested the applicability of general strain theory and social learning theory in this regard. To fill the gap in the literature, we draw on data from the Behavioral Risk Factor Surveillance System (2009) with the intention to test four hypotheses: (1) In light of general strain theory, we expect that the more strain youths experience, the more likely they are to use alcohol and drugs; (2) In light of general strain theory, we expect that youths who lack emotional support are more likely to use drugs and alcohol than those with such support; (3) In light of social learning theory, we expect that youths who live drug or alcohol users are more likely to imitate such risky behaviors and begin to abuse drugs and alcohol themselves. By examining what drives college students into risky behavior such as substance abuse, we
hope to achieve two goals; first, we aim to advance theory-building in criminology and sociology; second, we intend to better inform students of the healthy strategies in coping with the stress that comes along with their transition to adulthood and professional worlds. Additionally, through this study, we seek to assist educators, administrators, parents, and medical professionals in their efforts to understand risky behavior among young adults.

**SPANISH**

104. Katrina Couffer, Becky Merritt, Julia Downey  
**Sponsor: Michael Wong-Russell**

**Dissociation in the Short Story Su ausencia**

The objectives of this research were to analyze the behavior of the protagonist in a Latin American short story, Su ausencia by Horacio Quiroga; to consider the history of the author; and to determine the nature and effect of this work in the genre that literary critic Tzvetan Todorov studies as “fantastic.” Quiroga depicts a character who cannot remember the last six years of his life nor how he acquired world fame during that period, making the reader question with him the nature of his circumstances within the reality the tale establishes. Researching potential functional disorders that could assist in a naturalization of the character’s condition was carried out to determine if the nature of the protagonist’s condition was “supernatural”, or if verisimilitude was maintained, revealing his condition as uncanny but possible. The tale maintains a structure similar to Todorov’s theory, including a fantastic moment when the reader and protagonist both hesitate due to its perplexing nature. Sources in this research were studies of memory repression in journals of psychology and neuroscience, studies of attempted memory retrieval, and the emotional and environmental precursors and medical history of the protagonist, who is told he suffers from “epilepsy.” This research supported a finding of verisimilitude in the story, due to the diagnostic determination of a dissociative state; however, since dissociative disorders had not yet been identified at the time of the tale’s production, the epilepsy ascribed to the protagonist was found to be inaccurate, and now stands corrected in line with contemporary medical considerations.

**GRADUATE ABSTRACTS**

**NURSING**

63. Janet Actis  
**Sponsor: Shellie Simons**

**Improving Pediatric Discharge Readiness**

Length of stay in the hospital is becoming shorter and shorter with less time to be prepared for discharge home. Discharge readiness is becoming an important factor in the discharge process. Little research has been done regarding discharge readiness for pediatric patients and their families. The objective of this integrative review is to evaluate how nurses can improve discharge readiness for families of pediatric patients. Twelve studies between the years 1992-2015 were obtained from the literature reviewed using electronic databases to be further analyzed. This resulted in six concepts being identified: coordination and collaboration of efforts, meaningful communication, understanding family’s perceptions, education, involvement of families in care, and providing support for family. Two overarching concepts emerged from the themes: early discharge planning and transparency in care. The discharge process becomes more effective when early discharge planning occurs and open, honest, and reliable care is given. Nurses play a vital role in the discharge process and preparing a pediatric patient and family for the transition home.
64. Christine Allard  
**Sponsor: Shellie Simons**

**Violence Against Emergency Department Nurses**

Identifying precipitating factors leading to workplace violence against emergency department (ED) nurses is important to ensure a safe workplace environment in the ED. The purpose of this integrative review and research is to recognize precipitating factors leading to workplace violence against ED nurses. This review included international and United States research studies published between 2007 and 2015. Findings of precipitating factors leading to workplace violence against ED nurses included patient expectations, patients influenced by drugs and alcohol, a patient's diagnosis, history of violence, rejection of a request, overcrowding, staff workload and shortages, behaviors of nursing towards patients, timing, workplace design, security, and hospital policies. The current culture of acceptance of violence against ED nurses needs to be addressed. Nurses need to be educated on the triggers of violence, how it can be prevented, and what the effect of violence has on nurses, patients, and employers. The research shows the importance of this topic of workplace violence, specifically against ED nurses. There is recommendation for further research on effective education training programs, best practices on reducing ED violence, and accurate incidences of violence in EDs.

65. Maria Antonuccio  
**Sponsor: Ruth Remington**

**Teaching Strategies in Nursing Education to Engage Millennial Learners**

To explore teaching strategies that engage millennial baccalaureate nursing students. Background: Most nurse educators in colleges and universities today are of the Boomer or X generations. Their traditional teaching strategies may not accommodate the learning styles or preferences of their millennial nursing students. In order to engage these students, teaching strategies need to shift from traditional methods to innovative, experiential learning. Method: This integrative review included qualitative, quantitative, and mixed methods nursing research articles that were peer reviewed and have met the inclusion criteria for rigor and relevance. Data bases searched included CINAHL Plus with Full Text, ERIC, and MEDLINE. The time limiter was placed from 2000-2015 because this was when the millennial generation began to enter college. Search terms used were millennials, millennial students, nursing, nursing students, education, and engaging. Results: Eight articles were included in this research. Three themes emerged from the findings: 1) nursing students learning styles/preferences, 2) teaching strategies to engage millenial nursing students, 3) nurse instructor’s role in engaging nursing students. Conclusion: It is suggested in the literature for nurse educators to adapt their teaching strategies to fit the learning styles of millennial nursing students to foster engagement. These strategies include but are not limited to innovative, experiential, interactive, lessons; small group projects or presentations, and discussions, with instructor engagement through positive learning environments, connectivity, and use of technology.

66. Jeanne Arsenault  
**Sponsor: Shellie Simons**

**Factors Effecting Medicare 30 Day Readmissions**

Medicare has been assessing hospitals for 30 day re-admissions since 2012. These penalties result in millions of lost revenue for hospitals. This project is to identify factors effecting Medicare 30 day re-admissions through integrative review.

67. Jessica Buinicki  
**Sponsor: Ruth Remington**

**Obstetric Nurses and Non-Invasive Methods for Pain Management during Labor: An Integrative Review**

To determine what obstetrical nurses need to know about non-invasive pain management methods in labor, and their benefits. Data Sources: The electronic database of CINAHL, Medline, and Health
Source: Nursing/Academic Edition was used to identify studies published in English. No limits were placed on the date of publication up to and including 2015. Study Selection: Using exclusion and inclusion criteria, 58 studies were initially assessed for relevance to the research question through abstract review. Further screening resulted in full review of 10 studies. Finally, in-depth review of these 10 studies resulted in 5 studies that fully met inclusion and exclusion criteria. Data Extraction: Studies were reviewed for information related to factors associated with non-invasive pain management methods in labor. Data Synthesis: Studies revealed three themes, (a) healthcare environment influences pain management methods, (b) non-invasive pain management methods are associated with lower rates of operative deliveries and neonatal intensive care unit admissions, and (c) preparedness helps patients’ cope with labor pain and be more willing to use non-invasive pain management methods. Conclusion: Patients are anxious and in pain when they enter the hospital suite, and look to their nurse for support. As the expert nurses need to be able to explore non-invasive pain management methods with patients, discuss the benefits and risks of differing options, and help patients choose which method best suits their birthing goals. Search terms: include intrapartum, pain management, pain, and "nurs.

68. Cheryl Cahill  Sponsor: Ruth Remington

Civility Matters
The purpose of this integrative review is to examine how faculty is teaching civility in undergraduate nursing education. Background: The research reveals that acts of student incivility in nursing education have increased over the past several years. Nurse educators have noticed behavioral changes of students in the nursing programs at all levels. The first National Nursing Ethics Summit has called for reform in the methods of teaching ethics and civility in undergraduate nursing education. Method: The search utilized the electronic databases of CINAHL plus with Full Text, Medline, and ERIC. The search terms used to find studies for the sample included civility education and student nurse*. The inclusion criteria for the research were comprised of the following terms, United States, English language, research article, and peer-review. The exclusion criteria eliminated the terms online, workplace, or community. A hand search and ancestry search was conducted, which yielded no additional studies. Results: The sample consisted of eight studies that met the inclusion/exclusion criteria, which was comprised of qualitative and mixed methodologies. The findings suggested improved student civility with educational interventions. Four themes for teaching on the topic of civility emerged: awareness and education, policy development and implementation, communication and collaboration, and stress management. Conclusion: Teaching students concrete strategies for managing incivility and assisting them to comprehend their professional responsibilities promotes civility within the nursing culture. Educators can play an important role in shaping the ethics of nursing students to align with those of the profession by using a variety of teaching methods.

69. Tracy Camarro  Sponsor: Ruth Remington

Teacher-Nursing Student Relationship and Student Learning Outcomes: An Integrative Review
The purpose of the integrative review is to explore and describe, a) teacher-nursing student relationship, and b) the effects the teacher, student nurse relationship have on learning outcomes. Background: The teacher-nursing student relationship and the effects on student learning outcomes are essential to understand in order to effectively teach future nurses. The relationship between the teacher and student nurse may positively affect student learning outcomes. Design: Integrative Review of Research. Methods: Data review and exclusion from 1997-2014 using ancestry, hand searches, and the following electronic databases: CINAL, ERIC, Medline, and PsycINFO. Seven articles met the inclusion criteria. Results: Findings revealed that a positive relationship between the teacher and student nurse requires certain behaviors of the teacher. A positive relationship between a teacher and student nurse may affect overall student learning.
70. Bridget Conly, Jane Reardon  
*Sponsor: Shellie Simons*

**Effective Interventions to Reduce Barriers to Emergency Department Throughput**

What is the worst thing you can say to an emergency room nurse? (That doesn’t include profanity or vulgar language.) Emergency Department (ED) overcrowding and wait times are an increasing frustration for both staff and patients. The purpose of the integrative review is to identify interventions to improve ED throughput and reduce barriers to effective patient flow. Twelve articles were reviewed by two independent reviewers using extensive search engines. The literature review revealed common themes for interventions to reduce barriers to throughput, including, the institution of a Full Capacity Protocol, enhancing nursing scope of practice, direct to room approach, expedited discharge timing on inpatient beds, logistics management program. Implications for nurses reveal delays in patient flow to be a system wide problem. The findings validate the interest in the topic, but further research is needed to identify additional defined interventions.

71. Theresa Cooper  
*Sponsor: Ruth Remington*

**Student Nurses: Learning by Serving Abroad**

Aim: To study the effect of short-term study abroad experiences upon the student learning outcomes of American undergraduate nursing students. Background: The American Association of Colleges of Nursing requires that undergraduate nursing curricula include education for the delivery of culturally competent nursing care. Research suggests short-term study abroad is an effective way to instill culturally competent behaviors in foreign nursing students, however there is a lack of research regarding its effectiveness for use with American nursing students. As American colleges are collaborating with the Institute of International Education to provide financial assistance to students wishing to participate in short-term study abroad experiences, nurse educators are responsible to ensure these experiences meet course objectives within American nursing curricula. A review of current research regarding the effects of short-term study abroad experiences upon the student-learning outcomes of American nursing students, would provide insight for nurse educators who plan to incorporate short-term study abroad within nursing curricula. Design: Integrative Review of Research  
Methods: Data review from 2011-2015 using ancestry, hand searches, and computerized databases. Results: Short-term study abroad is an effective way for undergraduate American nursing students to gain cultural awareness, knowledge, and skills that may transform into nursing practice. Pre-trip preparation of students may remove blocks to transformative learning. Nurse educators should be aware of potential ethical considerations regarding exploitation of people within host countries. More research is suggested regarding the use of academic tools in measuring student-learning outcomes resulting from short-term study abroad.

72. Jennifer DiBenedetto  
*Sponsor: Shellie Simons*

**Nursing leadership and its effects on the multigenerational nurse**

This presentation will describe the effects that nursing leadership has on the multigenerational staff nurse population. It will also state how motivation and job satisfaction are directly influenced when the nurse leader is able to adapt their leadership style to each nurse individually.

73. Kathy Doyle  
*Sponsor: Shellie Simons*

**The Influence of Academic Incivility on Nursing Students**

The nursing profession is not immune to uncivil behaviors. They have seeped in to the trusted didactic, clinical, and healthcare academic institutional walls. This integrative review examines the phenomenological incivility concept and extracts four common themes from 14 quantitative, qualitative studies, and integrative reviews defining how academia influences nursing students (a) perceived
incivilities among and between nursing students, faculty, and clinical staff; (b) the psycho-social impact; (c) the impact on nursing practice, patient care, and safety; and (d) suggestions to decrease uncivil behaviors including faculty role modeling. Databases CINAHL; Google Scholar; Medline; PsychINFO; and SocINDEX limited to 2005-2015 were navigated and resulted in primary scholarly resources. Findings and discussion embed this review and conclude with the need for further research.

74. Michael Ferrazzi
Sponsor: Ruth Remington

Fatigue in Nursing

Background: Compassion fatigue continues to be an escalating issue within the profession of nursing. Nurses need effective interventions that can be used to prevent or combat compassion fatigue. Purpose: The purpose of this integrative review is to explore evidence-based interventions that nurses can use to prevent compassion fatigue. Method: This integrative review was conducted using four electronic databases: CINAHL Plus with Full Text, ERIC, MEDLINE, and OVID. The primary search terms included: compassion fatigue, education, interventions, signs, symptoms, teach*, and nurs*. Results: Nine research studies met the inclusion criteria for this review which emerged four major themes for evidence-based interventions: continuing education, a healthy work-life balance, strong leadership, and available resources for nurses. Conclusion: The findings from this integrative review suggest that there are evidence-based interventions that are effective in both preventing and combatting compassion fatigue. There needs to be closer attention made in regards to the prevention of compassion fatigue in nursing.

75. Ashley Fowler
Sponsor: Ruth Remington

Effective End-of-Life Teaching Strategies

Background: Nursing students continue to feel underprepared to care for patients at end-of-life. Despite an educational initiative created in 2000 to instruct nursing educators on teaching end-of-life, gaps still exist in student’s perception of their preparation to care for this population of patients. Purpose: The purpose of this integrative review is to explore how nursing students are being educated on end-of-life care and what teaching methods are most effective. Method: This integrative review was conducted using a search of CINAHL Plus with Full Text, ERIC, and MEDLINE. The primary search terms included: end of life care, student nurs*, and education. Results: The sample included 11 research studies that met the inclusion criteria for the review and yielded three major themes related to types of effective end-of-life education. Themes of simulation-based education, end-of-life education with an elective class, and end-of-life education with hospice experiences were extracted from this integrative review. Conclusion: The findings from this integrative review illustrate that there are many ways to teach end-of-life care effectively. Students feel that end-of-life education needs to be a priority to help ease their fears and increase their confidence to care for these patients. By utilizing simulation scenarios, hospice experiences, guest speakers, and creating a forum for students to discuss their own fears surrounding death and dying, can all help increase student’s readiness and expertise to care for patients and families at end-of-life.

76. Susan Galante
Sponsor: Shellie Simons

Effective Interventions to Reduce the Incidence of Compassion Fatigue in Nursing

Aim: The purpose of this integrative review was to identify effective interventions that help decrease the risk of compassion fatigue in nursing. Background: Compassion fatigue is considered to be the cumulative product of prolonged and intense contact with patients, and exposure to stress. As a result of this prolonged exposure, nurses may find themselves unable to empathize with another's suffering. Methods: An integrative review was conducted using the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, OVID, PubMed, Google Scholar, and Google. The inclusion criteria
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included English-language, peer-reviewed, secondary traumatic stress, burnout, and nurses. The exclusion criteria included outpatient clinics, electronic media, family care-giver, and tapes. Results: Finding revealed that manager support and resiliency programs were effective in reducing the risk of compassion fatigue in nursing. Three themes identified were workplace support, knowledge deficit, and self-awareness. Implications for Nursing Management: Nurse managers and organizations must provide the best educational and emotional support for their nurses. Not only would this provide a better quality of nurses, but it would also improve quality of care to patients. Keywords: compassion fatigue, nurses, self-care, caring, empathy, stress, and coping.

77. Rajani George       Sponsor: Ruth Remington

Electronic Health Records in Nursing Education

Electronic Health Records in Nursing Education Abstract Aim: To identify what pedagogies of EHR the nursing education programs are using in the ADN and BSN undergraduate education to prepare nursing graduates for practice. Background: The proliferation of Electronic Health Records (EHR) in the healthcare industry has created too many challenges to implement EHR’s into the nursing curriculum. The Institute of Medicine (IOM), the National League of Nursing (NLN), and the Quality and Safety Education (QSEN) competencies were the driving force to the challenge. Nurses are one of the largest groups of healthcare workers providing care and documenting in EHR and need to be fully prepared for the role and responsibilities of practice from their ADN and BSN nursing programs. Method: A search of nursing databases from October 2015 to March 2016 with search terms nursing, education, computer, informatics, undergraduate, electronic health records, electronic medical records. Search limitations included English language, peer reviewed, and journal articles. Sample inclusion criteria was educational briefs identifying pedagogies of academic EHR not empirically appraised from any country, qualitative, quantitative, and mixed method design. Exclusion criteria were non-English language, doctoral dissertations, editorials, and poster presentations. Results: Samples N=14 studies selected for inclusion were n=7 educational briefs, n=6 qualitative and n=1 mixed method design. Themes emerged were cost and lack of a universal interoperable systems, reduced clinical EHR training hours, and student and faculty experiences. Discussion: The lack of a universal interoperable system, high cost of commercial programs, and lack of faculty with knowledge and skills has led to implementation of different approaches to the pedagogies of EHR. Academic EHRs provide nursing students with knowledge and skills to understand the impact of information they enter into the EHRs in a safe environment and then provide safe, effective patient care in actual clinical setting.

78. Barbara Graczyk       Sponsor: Ruth Remington

Emotional Intelligence and Nursing Education

Background: Research suggests that emotional intelligence (EI) is important in nursing practice and may affect key nursing concepts such as professionalism, retention, performance, and intuition. Traditional methods of assessing nursing students focus mainly on academic performance based on cognitive intelligence, not EI. Screening for EI has the potential to increase the profession’s chances of educating students who are well suited for nursing and also guide EI curriculum design. Method: An integrative literature review was conducted to investigate the methods and findings of EI assessment among first-degree baccalaureate nursing students and to answer the question: how is the EI of first-degree baccalaureate nursing students being assessed and what are the implications for nursing education? A search was done of the following databases: CINAHL Plus with Full Text, ERIC, MEDLINE, Psychology and Behavioral Sciences Collection, Academic Search Premier, and Health Source Nursing/Academic Edition. Results: The literature (N=12) showed that several different EI measurement tools were used to assess EI in nursing education. Results conflicted on how EI changed over the course of four-year
nursing programs. Positive correlations existed between EI scores and student success and program retention. An interconnection was found between EI and self-image and the capacity for self-compassion. Conclusion: Research on the assessment of EI in first-degree baccalaureate nursing students is in the early stages of development. More studies are needed before a clear understanding of the role of EI emerges.

79. Sharon Keogh Sponsor: Ruth Remington

Cardiac Monitors and Alarm Safety

Background: Alarm fatigue results when nurses become overwhelmed by the number and frequency of alarm signals they must interpret and respond to. A significant proportion of these alarms lack clinical relevance, and do not require intervention. As a result, nurses become desensitized to alarms, and may ignore, deactivate, or silence them. Alarm fatigue is a serious patient safety issue that was identified as a 2016 National Patient Safety Goal by The Joint Commission. Aim: The purpose of this integrative review is to identify evidence-based practice guidelines to incorporate into an alarm safety and management education program for staff nurses. Method: A search was conducted using the databases OVID, Cumulative Index of Nursing and Allied Health Literature (CINAHL), ERIC, Medline, and Biomedical Reference Collection: Basic. Key words included clinical alarms, telemetry alarms, alarm fatigue, alarm management, electrodes, lead placement, nurs*, and nursing education. Results: Seven studies were included in this review. Results reveal that nurses do not fully understand the functions of complex cardiac monitoring systems, and a need exists for implementation of education programs that teach the proper operation of these systems. Quality improvement project findings identified evidence-based interventions that can be used by hospitals as a guideline when establishing policies and procedures for managing alarms. Conclusion: Educational programs are paramount in successful implementation of alarm reduction programs. Policies should be established that provide guidelines to ensure safe alarm configuration settings, and education programs should be implemented to validate competency of alarm system operation.

80. Deborah Lovewell Sponsor: Ruth Remington

Nursing Leadership Education at the Baccalaureate Level: An Integrative Review

As healthcare becomes more complex, the Institute of Medicine (IOM), the Robert Wood Johnson Foundation (RWJF), the American Association of Colleges of Nursing (AACN), and other organizations with interest, are turning to nurses and asking them to become leaders for quality patient care. In order to cultivate leadership skills and behaviors, leadership education needs to be part of pre-licensure nursing education not simply for nursing management or for the student’s transition to professional practice. Despite the need for nursing leadership in all areas of healthcare, there is a lack of research on effective teaching methods to embed leadership education into nursing curriculum. This integrative review will examine 9 current nursing research studies to answer the questions “What are the teaching strategies being used to educate student nurses in leadership and what specific leadership behaviors are most identified? The results provide evidence that current teaching methods include activity based experiential teaching and learning strategies conducive to clinical, classroom and simulation laboratory settings. The results also reveal that nursing leadership behaviors are not standardized in the literature by definition. Some of the leadership behaviors defined by this integrative review include; effective communication, the importance of functioning in a relational practice, being ethically responsible, reflexivity in decision making, teamwork, and managing organizational change.
81. Susan Miller  
**Sponsor: Ruth Remington**

**Pre-licensure Nursing Students’ Experiences with Patient Teaching**

Purpose: The purpose of this integrative review is to describe pre-licensure nursing student experiences with patient teaching. Background: As a result of the Affordable Care Act, a large number of newly enrolled people, many from vulnerable populations with chronic conditions, will need access to healthcare. This has the potential to overwhelm the American health care system unless patients can be educated about their conditions and empowered to provide self-care to better manage them. High quality patient education reduces healthcare costs, improves patient outcomes, and promotes health behaviors. The Quality and Safety Education for Nurses (QSEN) project has defined quality and safety competencies for pre-licensure nursing programs based on the Institute of Medicine (IOM) competencies. The first of these is Provide Patient-Centered Care (Committee on Health Professionals Education Summit, Board on Health Care Services, Institute of Medicine, 2003). This emphasizes the importance to inform, communicate, and educate patients. Method: An integrative review was conducted using CINAHL Plus with Full Text, ERIC, and MEDLINE. Articles were also found using ancestry and hand searches. Results: Seven articles met the inclusion criteria. Active learning strategies were used in all articles. Improvement in students’ self-efficacy was a major indicator of patient teaching competence achievement, mentioned in five articles. Two of the articles described the use of direct patient interaction in their patient teaching strategies, five of the articles made no mention of nursing students being given intentional real-life teaching experience with patients. Conclusion: Nursing curricula across all entry levels must evaluate how they are preparing their students to provide effective patient teaching. They must ensure that they are incorporating intentional patient teaching strategies with competency assessment, and create more opportunities for direct patient teaching experience in the clinical settings.

82. Julie Norton  
**Sponsor: Ruth Remington**

**Pressure to Educate**

Background: Distinction between pressure ulcer classifications can be difficult. Misclassification and incorrect identification results in inadequate preventive and therapeutic measures. Continued education and training are important for providing evidence-based insights about this topic. Aim: To investigate how educational strategies used in pressure identification and prevention within nursing professional development can improve the nurse’s ability to classify pressure ulcers. Design: Integrative literature review. Methods: Research from 2007-2015 using the following databases: CINAHL Plus with Full Text, MEDLINE, and ERIC. Results: The findings from 11 articles from various nursing journals propose that providing nurses with continued education through educational interventions will improve nurses’ knowledge about pressure ulcers. Conclusion: The findings of this integrative review suggest that nurses’ knowledge in relation to identification and staging of pressure ulcers was poor, and educational interventions on classification of pressure ulcers should improve nurses’ knowledge.

83. Nancy O’Brien  
**Sponsor: Shellie Simons**

**Barriers to Nurses Activating Rapid Response Teams**

Prompt activation of a Rapid Response Team (RRT) is necessary to prevent the progression of adverse events in the hospital setting. The purpose of this integrative review is to determine the barriers to nurses’ activation of the RRT. This review included research studies and related articles from the United States, England, Canada, Singapore, Greece, Australia, and the United Kingdom that were published between 1994 and 2015. Findings revealed barriers to nurses’ activation of RRT which included RRT characteristics such as communication and supportive behaviors, justification/fear of criticism, recognition of the deteriorating patient, hospital culture or hierarchy, knowledge of the RRT, and decision making model. Overcoming these barriers is essential in order to insure safe, appropriate patient care and
promote positive outcomes. While the research findings validate that the barriers exist, further research is needed to develop and support initiatives to overcome these barriers through improved communication and education.

84. Florence Oppong, Minyanga Kunje Sponsor: Susan Mullaney

A Just Culture: The Role of Nursing Leadership

Aim: The purpose of this integrative review is to explore the role of nursing leadership in promoting patient safety, motivating staff to report errors while maintaining a just culture. Methods: A literature review was conducted using Cumulative Index to Nursing and Allied Health Literature (CINAHL) plus database include Medline, Psych Info, and Google search engine. A just culture environment empowers nurses and its leaders in finding root cause analysis and encouraging error reporting without the fear of individual punishment and therefore promoting patient safety. Findings: Themes that emerged were barriers to error reporting, leadership role in moving from a blame culture to a just culture such as accountability, care, clarity, consistency and commitment. Blame culture was identified throughout the literature review as a traditional approach to error resolution, and a learning environment. In addition to themes that were identified, subthemes also emerged. The subthemes for barriers to error reporting are fear of blame and punishment. Research Limitations: This is an area which nursing leadership still needs to invest more resources to building a high reliability organization with a learning culture thereby limiting errors to zero by having a dialogue with front-line nurses about patient safety. More research is needed to expand the concept of a just culture and the role nursing leadership plays. Implications nursing leadership: Nursing leadership must successfully implement effective disciplinary teamwork in healthcare by ensuring that critical skills and simulation are embedded in practice. Keywords: Just culture, blame culture, high-reliability organization (HRO), patient safety, error reporting

85. Amy Pasini Sponsor: Shellie Simons

Nurse and Patient Outcomes with Extended Shift Length

Nurses work longer shifts to accommodate financial concerns among institutions and overtime shifts to meet the demands of a nursing shortage. The purpose of this integrative review is to determine if extended shift length for nursing has negative effects on the nurses themselves or the patients that they care for. This review included United States and International research published between 2003 and 2014. Findings revealed that extended shift length can have a negative outcome on the nurse and in some cases the patient the nurse cares for. It can be noted that while the research suggests that extended shift length can be negative for the nurse and patient, the majority of the studies find that the nurses prefer the 12- hour shifts over the traditional 8-hour shifts. The major themes that emerged were increased stress with shift length, sleep deprivation, communication and decision making, job satisfaction, recruitment, retention, and recommendations to nurse managers with scheduling for optimal rest for the nurse. Patient safety is the ultimate outcome and further research is needed.

86. Catherine Perry, Gabrielle Trahan Sponsor: Ruth Remington

Nursing Students’ Experiences with Lateral Violence

Background: Lateral violence (LV) is a common problem in the field of nursing. The research has shown that it has negative effects that impact nursing retention which directly affects the impending nursing shortage. Also, LV has been shown to negatively impact patient safety. However, there is little research on nursing students’ experiences with LV. Aim: To investigate nursing students’ experiences with LV during their years of study at a school of nursing. Methods: An exhaustive search using three databases with clearly defined search terms and years of publication was conducted. Additional articles were found.
by ancestry and hand searches. After review of the literature and assigning a quality rating to determine their rigor, the search yielded (N=7) research articles. Results: The literature (N=7) revealed that LV does exist in schools of nursing and majority of students reported witnessing or experiencing acts of LV at least once during their years of study. These acts were perpetrated by their peers and by their faculty in both the academic and clinical setting. The results also showed that LV has negative physical and psychological effects on students who do not always engage in healthy coping habits. Discussion: Schools of nursing should provide students and faculty a clear definition of LV as well as implement assertiveness training and coping skills into the curriculum.

87. Mickayla Regan  
Sponsor: Shellie Simons

Standardizing the Nursing Handover Process

Aim: To examine and appraise the literature surrounding current deficits in nursing handover practice. To evaluate the utilization of a standardized handover program as it relates to the accurate and efficient transmission of relevant patient care information. Background: The Joint Commission International and the World Health Organization have identified that improving effective communication among healthcare providers is a high priority patient safety goal, and as a result several standardized handover procedures are currently in use. Further research is necessary to identify the most effective standardization tool for implementation in the nursing handover process. Data sources: Electronic database Cumulative Index to Nursing and Allied Health Literature (CINAHL) was used to isolate relevant peer-reviewed journal articles. Review Methods: English language peer-reviewed journal articles were used. Articles which were highly specialized to a particular patient population without transferability were excluded. Results: Themes identified include quality of handover, content included, and the presence or absence of a standardized nursing handover communication tool. A total of fifty six papers were appraised for relevance. Conclusion: The literature supports the statement that ineffective nursing handover has great potential to result in sub-standard patient care and deficits in patient safety practices. The Joint Commission International and the World Health Organization have identified that improving effective communication among healthcare providers is a high priority patient safety goal, and as a result several standardized handover procedures are currently in use. The preferred model used varies depending on the patient population, as well as unit type. Further research is necessary to identify the most effective standardization tool for implementation in the nursing handover process. Keywords: nursing, communication, handoff, handover, report, miscommunication, information transmission

88. Elizabeth Rekowski  
Sponsor: Ruth Remington

Bedside Shift Report

Objective: To determine if there is evidence to support bedside shift report and patient safety. Data Sources: The electronic databases of CINAHL with full text®, Healthsource: Nursing/Academic Edition, ERIC™, Biomedical Reference Collection: Basic, and Health Source: Nursing/Academic Edition were used to identify studies in English. The search was inclusive of research articles from 1999 to 2015 from the United States, Canada and Australia. Study Selection: The initial search revealed 105 articles pertaining to bedside shift report and patient safety with duplicates removed. After abstract review, 27 articles were selected for further review resulting in 7 articles that met inclusion criteria. Data Extraction: Studies were included that involved bedside shift report as compared to other types of handoff, as it relates to patient safety. Data Synthesis: The review revealed three themes (a) bedside shift report provides a safer method of nursing handoff than other methods, (b) increased patient and nurse satisfaction post implementation of bedside shift report; (c) bedside shift report improves patient involvement in their care. Conclusion: Bedside shift report is an important method of nursing handoff. If done correctly, possible errors could be identified earlier thereby improving patient safety and outcomes. This method of handoff enables the patient and family to be inclusive in their plan of care thereby
increasing patient and nurse satisfaction. Bedside shift report supports a team approach and fosters patient centered care. Search Terms: bedside shift report or handoff, nurs*, and patient safety.

89. Whitney Sayman  Sponsor: Ruth Remington

Using Simulation to Assess and Improve Clinical Competency

Purpose: To identify if simulation can be a valid and reliable tool to both assess and improve clinical competency of nurses. Background: Just as there is a need to transform education within academia to prepare new graduates to practice safely as novice nurses, there is also the need to ensure continuing competency throughout professional nursing practice. Based the IOM report To Err is Human, there is a call for reform in healthcare education to reduce errors and improve patient outcomes. This can be accomplished through the reconstruction of continuing education programs to incorporate simulation.

Methods: A thorough search was achieved utilizing the databases: CINHAL Plus with Full Text, ERIC, and Medline with search terms simulation, nurse, competency, and assessment. Google scholar, hand-search, and ancestry were used to elicit further research. Specific inclusion and exclusion criteria were applied. Sample research articles were analyzed to determine relevance to the research questions and critically appraised using the Hawker Appraisal Tool. A data matrix was created to extract data in order to compare findings and identify common themes within the research. Results: The sample (N=11) yielded research articles which were qualitative (n=1), quantitative (n=1), and mixed method (n=1). Common themes were that simulation is an effective means to assess competency, enhance clinical competency through improvements in communication and confidence, and facilitate increased content retention.

Discussion: There is a need to transform continuing education to support professional development and ensure nurses are maintaining clinical competence. Based on the findings, simulation should be considered as a means to assess and improve clinical competency of nurses.

90. Robin Shaikh  Sponsor: Shellie Simons

The Influence of Interruptions on Medication Errors

Abstract Medication errors are a serious problem. International studies have demonstrated nurses who are interrupted while passing medication have an increased medication error rate. However, little is known regarding the impact of interruptions amongst American nurses while giving medications. The environment of American hospitals requires that nurses be able to multitask and prioritize accordingly. The objective of this integrative review is to examine whether more medication errors occur when American nurses are interrupted during medication administration compared to when interruption reduction strategies are implemented. The methodology to locate research articles consisted of an extensive search through seven analytical data bases between the years 2010-2016 published in the United States. The emerging themes of the eleven articles included: education, systematic checks, zonal areas of protection, the usage of signs, the number of medication errors with and without interventions, and the number of interruptions with and without intervention. Implications to practice include a work environment that utilizes the interventions: signage, education, systematic checks, and zonal areas of protection to reduce interruptions and bedside rounding, and “Medication Quiet Time” to reduce medication errors. Further research should focus on design, sample size and implementation strategies, which account for variables like nurse to patient ratio and the intensity of illness.

91. Robin Sharkey  Sponsor: Shellie Simons

Nurse/Physician Collaboration

Collaboration is an essential component in the quest for quality patient care. One of the most important relationships in the healthcare team is that of the nurse and physician. The purpose of this integrative review is to show barriers to this collaborative relationship and strategies to improve it. The perceptions of the nurse and physician give insight into what is necessary for more effective communication. The studies show the correlation between education and the skills necessary for improving the collaborative
relationship and positively effecting patient outcomes. According to the Joint Commission (2008) breakdowns in communication are a main factor in medical errors making research in this area vital.

92. Patricia Smith-Allen Sponsor: Ruth Remington

The Effects of Peer Mentoring on Nursing Students

The Effects of Peer Mentoring on Nursing Students. Background: Decreasing enrollments in combination with falling retention rates are creating a shortage of qualified, graduating nursing students. Schools of nursing have recognized this dilemma and are experimenting with peer mentoring strategies to address these shortages. Method: An integrative review was conducted using six electronic databases: CINAHL Plus with Full Text, ERIC, Google Scholar, PubMed Search, ProQuest, and PsycINFO. Search terms used were mentoring, peer mentoring, nurs*, and nursing students. Results: Eight studies met the inclusion criteria. Peer mentoring was identified as a unique strategy that allows students to mentor other students with positive results for both the mentors and the mentees. Conclusion: Findings support further research efforts into expanding and refining the use of peer mentoring strategies in schools of nursing in order to: (a) increase student enrollments, (b) maintain and improve student retention rates, (c) support declining faculty numbers, and (d) prepare nursing students to function effectively in the workplace upon graduation.

93. Sharon Stemm Sponsor: Shellie Simons

What is the Nurse Leaders Role in Managing Disruptive Behavior?

Aim: The aim of this integrative review was to explore the role of nursing leaders in the management of disruptive behavior in the workplace. Background: Disruptive behavior in the nursing workplace is overwhelmingly common. It directly impacts the welfare of both nurses and patients. Limited research has been conducted on successful interventions and actions to support nursing leaders in tackling this problem. Method: Data was collected through the use of database searched including Cumulative Index to Nursing and Allied Health Literature CINAHL and PubMed. Qualitative studies, quantitative studies, and systematic reviews were reviewed. Results: Four common themes emerged: (a) clear policies and enforcement of the policies within the organization, (b) awareness and education (c) communication and relationships among leaders and staff, and (d) healthy work environment and culture. Conclusion: Nursing leaders must be committed as they are a vital influence on the nursing work environment of nurses. Policies, awareness, education, communication and a healthy culture are all essential to manage or prevent such behavior. Implications for Nursing Management: The results of the integrative review provide guidance to nursing leaders to address disruptive behavior in the workplace. Adding to current knowledge, this review spells out actions nursing leaders can immediately execute to manage such behavior. Keywords: Disruptive behavior, incivility, nurs*, management

94. Allison Wednt Sponsor: Ruth Remington

Orientation Experiences of New Graduate Nurses in Specialty Areas

Background: The shortage of Registered Nurses in the U.S. has given new graduates the potential to gain their first employment directly into a specialty unit. However, novice nurses tend to leave their positions, if not the profession all together, after a short time. This population of nurses requires an extensive period of specialized orientation in order to ensure adequate preparation for safe practice. Methods: An integrative literature review, the five article sample includes two qualitative, one mixed prospective, one mixed descriptive, and one retrospective descriptive study. All nurses within sample were new graduates employed with their first position in an emergency or adult critical care department. Purpose/Aim: The purpose of this integrative review is to explore the orientation experiences and needs of new graduate nurses in specialty areas, specifically the emergency and adult critical care departments. Results: Results suggest that new graduate nurses may be successfully integrated into a specialty unit with the proper orientation plan. Successful orientation and integration into the specialty area increases job satisfaction and retention, thus promoting safe patient care. Conclusions: Traditionally new nurse graduates required a minimum of one year general or medical surgical nursing prior to entering a
specialty area. The landscape of healthcare is changing and with the shortage of qualified specialty nurses, new graduates are entering into these departments directly from school. The current nursing workforce must strive to mentor these novice nurses in order to ensure quality patient care as well as satisfaction with the profession of nursing.