An Advanced Update on Hearing Aid Technology and Clinical Best Practices
July 27-30 2017

Workshop Description
Technological advances in amplification continue at an accelerating rate. In this workshop, participants were provided with a comprehensive review of our current knowledge base concerning the damaged auditory system, signal processing, and verification and outcome measures. Special focus was placed on audibility and noise reduction related technologies, wireless signal processing, and verification techniques and technology. Modern pre-fitting measures were reviewed and related to the selection and application of advanced hearing aid technology. A series of hands-on activities and presentation of case studies assisted participants in relating the didactic material to clinical service delivery. Participants gained experience using several different verification units.

Faculty:
Jason Galster, PhD
George Lindley, PhD, AuD
Martin Pienkowski, PhD
Harvey Abrams, PhD

All instructors and relevant personnel have completed a disclosure form and George Lindley, Harvey Abrams and Martin Pienkowski do not have any relevant financial or nonfinancial relationships. Financial: Jason Galster is employed by Starkey Hearing Technologies. He will not be receiving any compensation from Starkey for his involvement in this workshop. Non-Financial: Jason Galster has no non-financial relationships.
# Time Ordered Agenda for An Advanced Update on Hearing Aid Technology and Clinical Best Practices

**Thursday, July 27th**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>8:30 am – 9:30 am</td>
<td>Registration and Continental Breakfast</td>
<td>Café Foyer</td>
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<tr>
<td>9:30 am - 11:00 am</td>
<td>The Damaged Auditory System-Peripheral: (M. Pienkowski)</td>
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<td><strong>BREAK</strong></td>
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<tr>
<td>11:20 am - 1:20 pm</td>
<td>The Damaged Auditory System-Central: (M. Pienkowski)</td>
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<td></td>
<td><strong>LUNCH</strong></td>
<td>Small Café</td>
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<tr>
<td>2:30 pm - 3:30 pm</td>
<td>Hearing Aid Pieces and Parts: (J. Galster)</td>
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<td><strong>BREAK</strong></td>
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<tr>
<td>4:00 pm – 5:30 pm</td>
<td>Hands-on: Fundamentals of Modern Hearing Aid Acoustics: (J. Galster)</td>
<td>Lab #S202</td>
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<td></td>
<td><strong>DINNER</strong></td>
<td>Small Café</td>
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**Friday, July 28th**

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>8:30 am – 10:00 pm</td>
<td>Audio signal processing in hearing aids (Part 1): (J. Galster)</td>
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<td><strong>BREAK</strong></td>
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<tr>
<td>10:30 am – 12:00 pm</td>
<td>Audio signal processing in hearing aids (Part 2): (J. Galster)</td>
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<td></td>
<td><strong>LUNCH</strong></td>
<td>Small Café</td>
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<tr>
<td>1:30 pm – 3:00 pm</td>
<td>Audio signal processing in hearing aids (Part 3): (J. Galster)</td>
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<td><strong>BREAK</strong></td>
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<tr>
<td>3:15 pm – 4:45 pm</td>
<td>Hands-on: Verification of Hearing Aid Signal Processing Features (J. Galster)</td>
<td>Lab #S202</td>
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<tr>
<td>Lab #S202</td>
<td><strong>DINNER</strong></td>
<td>Small Café</td>
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**Saturday, July 29th**

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>8:30 am - 10:00 am</td>
<td>Pre-fitting Measures: (G. Lindley)</td>
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<td><strong>BREAK</strong></td>
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<tr>
<td>10:20 am – 12:00 pm</td>
<td>I’ve got my speech mapping results, now what? (G. Lindley)</td>
<td>Small Café</td>
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<td></td>
<td><strong>LUNCH</strong></td>
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<tr>
<td>1:30 pm – 3:00 pm</td>
<td>Hands on with Pre-Fitting Measures (G. Lindley)</td>
<td>Lab #S202</td>
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<td><strong>BREAK</strong></td>
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<tr>
<td>3:15 pm - 4:45pm</td>
<td>Hands on with Verification (G. Lindley)</td>
<td>Lab #S202</td>
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**Sunday, July 30th**

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<tr>
<th>Time</th>
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<tr>
<td>8:30 am - 10:00 am</td>
<td>Outcome Measures: (H. Abrams)</td>
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June 14, 2017

*Please note: Unless otherwise noted, all classes will take place in ROOM# W111*
Learning Objectives for an Advanced Update on Hearing Aid Technology and Clinical Best Practices

1. Identify potential areas within the peripheral auditory system that are susceptible to damage. (The Damaged Auditory System – Peripheral session).

2. Describe the impact peripheral damage has to hearing abilities in an individual. (The Damaged Auditory System – Peripheral session).

3. Identify potential areas within the central auditory system that are susceptible to damage. (The Damaged Auditory System – Peripheral session).

4. Describe the impact central damage has to hearing abilities in an individual. (The Damaged Auditory System – Central session).

5. Describe how damage to the peripheral auditory system is a consideration in the prescription of hearing aids. (The Damaged Auditory System – Central session).

6. Describe how damage to the central auditory system is a consideration in the prescription of hearing aids. (The Damaged Auditory System – Central session).

7. List common hardware components found in modern hearing aids. (Hearing aid Pieces and Parts session).


9. Detail the behavior of several technologies that facilitate restoration of audibility. (Audio signal processing Pt 1 session).

10. Detail the behavior of several technologies that mitigate negative effects of noise. (Audio signal processing Pt 2 session).


15. Identify patient-specific factors that can be used in selecting which hearing instruments are most appropriate for a given patient. (Pre Fitting Measures session).

16. List behavioral and objective pre-fitting measures that can be used to determine candidacy for amplification. (Pre Fitting Measures session).

17. Relate data obtained from objective and subjective pre-fitting measures to specific hearing aid features and options. (Pre Fitting Measures session).

18. List three ways in which speech mapping data can be used in the fitting process. (I've Got My Speech Mapping Results, Now What? session).

19. Identify scenarios when matching a target is not critical. (I've Got My Speech Mapping Results, Now What? session).

20. Use aided SII to quantify whether sufficient audibility is being provided. (I've Got My Speech Mapping Results, Now What? session).


22. Describe the major elements of the World Health Organization’s International Classification of Functioning, Disability and Health (ICF) and how they apply to hearing loss. (Outcome Measures session).

23. List 5 outcome domains. (Outcome Measures session).

24. Provide examples of outcome measures in the impairment domain and activity and participation domain. (Outcome Measures/Auditory Training session).

25. Provide examples of disease-specific and generic outcome measures used to measure audiologic benefits. (Outcome Measures/Auditory Training session).


27. Describe one satisfaction outcome measure. (Outcome Measures/Auditory Training session).

28. Describe one global outcome measure. (Outcome Measures/Auditory Training session)
29. Define and provide an example of a health-utility measures; (Outcome Measures/Auditory Training session).

30. Discuss how the use of outcome measures can benefit your practice. (Outcome Measures/Auditory Training session).

31. Describe the results of two systematic reviews that reviewed the evidence for auditory training and group-based audiologic rehabilitation. (Hands on: Auditory Training session).

32. Describe the effects of music training on speech perception. (Hands on: Auditory Training session).

33. Describe 2 commercially available auditory training program. (Hands on: Auditory Training session).

34. Critically review the literature supporting or not supporting the benefits of Commercially available auditory training. (Hands on: Auditory Training session).

35. Discuss how auditory training employs the principles of gamification. (Hands on: Auditory Training session).


Salus University is approved by the American Academy of Audiology to offer Academy CEUs for this activity. The program is worth a maximum of 2.35 CEUs. Academy approval of this continuing education activity is based on course content only and does not imply endorsement of course content, specific products, or clinical procedure, or adherence of the event to the Academy’s Code of Ethics. Any views that are presented are those of the presenter/CE Provider and not necessarily of the American Academy of Audiology.
This program is offered for up to 2.35 CEUs (Advanced level; Hearing Assistive Technology (5030) area).

Each 4-day workshop includes Lecture and Hands-on Practicum

*There will be limited enrollment in each workshop to enhance*

For further information, please contact:

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pkane@salus.edu
bmyers@salus.edu
jwilbur@salus.edu

2017 Summer Workshop Series
Information & Pricing

Full 4 Day Workshop

An Advanced Update on Hearing Aid Technology and Clinical Best Practices for 2017*
July 27 through July 30, 2017:
Standard Cost USD $1,025.00
Active 2016-2017 OCA Preceptors (20% discount) USD $820.00

June 14, 2017
Recent OCA Graduates (2013-2016) (10% discount) USD $923.00

**Single Day Registration - please select individual day(s)**

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<tr>
<th>Cost Type</th>
<th>Cost per day</th>
<th>USD $</th>
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<tbody>
<tr>
<td>Standard Cost</td>
<td>USD $256.25</td>
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<tr>
<td>Active 2016-2017 OCA Preceptors:</td>
<td>USD $205.00</td>
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<tr>
<td>Recent OCA Residential Graduates:</td>
<td>USD $231.00</td>
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1. #72717 Thursday July 27, 2017 – *Damaged Aud. System & Amp. Implications*
2. #72817 Friday July 28, 2017 – *Acoustic Signal Processing*
3. #72917 Saturday July 29, 2017 – *Selection and Verification*
4. #73017 Sunday July 30, 2017 – *Outcome Measures/Auditory Training*

For more information and to register online: [www.salus.edu/summerworkshops](http://www.salus.edu/summerworkshops)

*Please see full course outline for curriculum and daily agenda details of each workshop.
All attendees are strongly encouraged to bring their personal laptops or tablets. In an effort to reduce waste, paper copies of lectures will not be distributed.*

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### 2017 Summer Workshop Series

**Registration & Payment**

Name: ____________________________________________________________

Organization: ____________________________________________________

Street Address: ____________________________________________________

City: __________________________ State/Province: ____________________

Postal/Zip Code: __________________ Country: ________________________

Email: ____________________________ Phone: ________________________

Course/Workshop(s) chosen: _______________________________________

Credit/Debit Card # ______________________________________________

Expiration: ___/____ CVV# _____ Name on Card: ______________________

June 14, 2017
Billing Street Address: ____________________________________________________________

City: __________________________________ State/Province: ____________________________

Postal/Zip Code: _________________________ Country: __________________

Total Amount to Be Charged: USD$ ______________

1. If a registrant cancels before July 12, 2017, they will receive a full refund minus a $25 administrative fee.
2. If a registrant cancels after July 12, 2017, there will be a $200 cancellation fee.
3. If a registrant must cancel at any time due to a medical emergency, he/she will receive a 100% refund of the registration fee if the cancellation request is accompanied with a note from a physician.
4. If the registration payment was made by credit card, the cancellation refund will be credited to the credit/debit card account.
5. If the registration payment was made by check, the cancellation refund will be sent via check to the address provided on the CE registration form. Checks are to be made payable to “Salus University” and sent to Osborne College of Audiology, 8360 Old York Rd., Elkins Park, PA 19027.

*In the instance that this Summer Workshop is cancelled or rescheduled:

Salus University reserves the right to cancel courses, change meeting places, or make other necessary and appropriate changes to the continuing education schedule. Courses that have not met minimum enrollment prior to the start date may be cancelled. Registrants will be alerted to the cancellation or rescheduling of an event via email and on the Salus University website. Refunds of registration fees for cancelled or rescheduled continuing courses are subject to the following requirements:

1. If a course is cancelled, the registrant automatically receives a 100% refund.
2. If a course is rescheduled, the registrant may (1) apply the registration fee to the new course date or (2) receive a 100% refund.
3. If the registration payment was made by credit card, the cancellation refund will be credited to the credit card account.
4. If the registration payment was made by check, the cancellation refund will be sent via check to the address provided on the CE registration form.

Event Cancelled by the Registrant

Registrants may cancel their participation in a CE program in advance of the start date. The following parameters will apply:

1. If a registrant cancels before July 12, 2017, they will receive a full refund minus a $25 administrative fee.
2. If a registrant cancels after July 12, 2017, there will be a $200 cancellation fee.
3. If a registrant must cancel at any time due to a medical emergency, he/she will receive a 100% refund of the registration fee if the cancellation request is accompanied with a note from a physician.
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June 14, 2017
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**In the instance that this Summer Workshop is unsatisfactory to attendee:**

Participants wishing to register a complaint due to dissatisfaction with continuing education program provided by Salus University should contact the Office of International and Continuing Education at the following address:

Salus University  
Office of International and Continuing Education  
8360 Old York Road  
Elkins Park, PA 19027  
Email: CEregistration@salus.edu

The participant must indicate the nature of the complaint; the continuing education program about which the complaint is based; the date and time of the issue giving rise to the complaint; and any other pertinent information about the complaint. The Office of International and Continuing Education will respond in writing to complaints within 15 business days of receipt. The Office of International and Continuing Education will make determinations regarding appropriateness of refunds based on complaints in consultation with the Salus University continuing education advisory group.

For further information or questions about accessibility, please contact Ms. Janet Wilbur – jwilbur@salus.edu or 215-780-1380.