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**TSST COURSE AUDIT FORM**

**This form is designed to allow community based panels of teachers to evaluate each other's course, facilitated by the Institute of Physics.**

**Courses which meet the required standard will be deemed to have received IOP-enabled community approval.**

**Evaluators will be primarily looking at consistency between course objectives/outcomes and mode of delivery. The audit form is designed to test the coherence of the course as described. Individual courses may vary in length and it is for individual participants to decide which advertised length suits their needs best.**

**However, based on community feedback, it was felt that it would be helpful to provide some guidance as to specific aspects. Most specific recommendations are given in the Notes columns. In addition it was felt that a TSST course securing IOP approval would normally be expected to take 30-50 hours to complete, excluding unmonitored independent learning time. Please note that a course submitted for auditing will not be penalised if it does not meet a stated guideline. However, the approval panel will expect to see some justification.**

**Institute of Physics will publish details of all community approved courses on the IOP website.**

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| **Name of lead school** | Sir Jonathan North Community College |
| **Lead contact** | Patricia Thompson |
| **Date submitted** | September 2018 |

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| **Course summary** | **Notes** |
| Objectives: to enable non-specialists to teach KS4 Physics with confidence by developing the subject-specific practical skills, knowledge and pedagogy.  Expected Outcomes:  Teachers will have extended their subject knowledge and had the opportunity to learn and develop skills with others from schools across the region  Teachers will be able to improve the overall quality of teaching and learning of Physics and be able to develop materials and schemes of work  Schools will have more flexibility in timetabling  Schools will have improved outcomes for learners at KS4  The TSST will follow a blended learning model including:   * 3 Face-to-face days (18 hours), delivered by our IoP Physics co-ordinator, using the high quality materials developed by IoP, The sessions will be planned in conjunction with a SLE experienced in facilitation to ensure quality delivery. * 2 days of a lesson study type approach, with participants co-planning and observing each other’s lessons. The nature of this will depend on the specific background of the participant (12 hours) * Online learning (provided by CIMT) | Short description of the course (e.g. objectives and expected outcomes) |

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| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  | **Subject area (indicate number of hours)** | | | | | | | **Mode of delivery** | Energy | Motion & Forces | Waves | Electricity & electromagnetism | Matter & Space | Other, if any, specified below: | | Face to Face (Presentations, lectures, guided group tutorial work with tutor present) | 2 | 5 | 5 | 4 | 2 |  | | Practical (Hands on use of apparatus working individually or small groups. Observation of demonstrations is not deemed to be practical work) | NB we have not distinguished between practical and theory. The practical is intrinsic to understanding and will be embedded into the theory. | | Coaching/ Mentoring (One to one or small group sessions involving coaching, mentoring or allied techniques led by an experienced practitioner.) |  | | | | | This is implicit within the face to face days.  Coaching will also be part of the lesson study evaluation and feedback. | | Monitored independent learning (e.g. online tutorial work) | 2 | 2 | 2 | 2 | 2 | NB this is difficult to subdivide into the different disciplines as it will depend on the findings of the initial diagnostics. | | Other modes (please specify below)  Lesson study- pairs/small groups co-plan and observe each other’s lessons. 2 cycles of this with feedback from course leader. | 2 | 3 | 3 | 2 | 2 | NB this is difficult to subdivide into the different disciplines as it will depend on the findings of the initial diagnostics. | | **Total hours** | 6 | 10 | 10 | 8 | 6 | 40 |  |  |  | | --- | --- | | **Please provide further *brief* detail on the following aspects of the course** | **Notes** | | **Practical Work** | Specify what nature is – e.g. embedded in related session/standalone/skills focussed, work in pairs/groups. Also include Health and Safety measures in place. | | Key practicals will be embedded and contextualised within the relevant topics, Group will work in pairs or triplets to dissect key practicals with an emphasis on meta-cognition and how to use key vocabulary to avoid scientific misconceptions. Risk assessment information will be provided for all practicals, including an emphasis on safety in the classroom. | | **Subject knowledge** | Please give more details on methodology of subject knowledge (e.g. lecture, practice questions, peer tutorial, diagnostic testing) | | A small cohort size of 5 will allow us to have an interactive tutorial-style format. Pre-session diagnostic testing via the IOP TSST platform will enable the course leader to have a clear idea of the specific content needed in order to allow content to be personalised. Course leader will use the IOP TSST materials, together with other IOP materials as a stimulus. Key GCSE practice questions will be clearly embedded into each session, together with discussion of common misconceptions and errors. Peer tutorials will also be used where appropriate in order to allow participants to gain confidence in modelling key learning opportunities. | | **Pedagogical Content Knowledge** | Give further details on methodology used (e.g. pupils, misconceptions/naïve conceptions) | | Common pupil responses will be discussed throughout the sessions. There will be a pedagogical narrative running alongside the delivery of subject knowledge- it is essential to not consider either in isolation. Limitations of models used will also be discussed. | | **Research Informed Practice** | How do you propose to embed the results of research informed best practice (e.g. access to research articles) | | Course leader is a Lead Teacher and SPC for the IOP and will use latest IOP guidance to inform planning. School has access to academic research articles via Chartered College membership. Participants will be encouraged to engage with the IoP throughout the course and be advised of key organisations/people to follow on Twitter in order to stay up to date with the latest research and best pedagogical practice. | | **Handling of Mathematical Requirements** | e.g. handling of graphical techniques, proportionality, errors | | Mathematical content including key mathematical vocabulary will be embedded into the sessions at appropriate points, with an emphasis on the narrative of maths pedagogy including key misconceptions. Maths content will be specifically audited using DfE and exam board guidance. This will include graph drawing, estimates, standard form, significant figures, averages, probability and algebra, as per DfE guidance. | | **Participant Assessment Arrangements** | Use of various modes e.g. lesson observation, portfolio, diagnostic testing, etc. | | Pre-session diagnostic testing via the IOP TSST platform will enable the course leader to have a clear idea of the specific content needed in order to allow content to be personalised. Key GCSE practice questions will be used formatively. Diagnostic tests will then be repeated at the end of each session in order to determine progression in terms of subject knowledge. The lesson study approach will be used to allow peers to plan and observe lessons, but this will be evaluated through a self and peer reflection proforma with the session leader evaluating the responses and giving feedback between cycles before preparing a final summary report for each participant highlighting strengths and next steps. | | **Quality Assurance Mechanisms** | Mention use of any form of quality assurance – use of validated material, external validation or accreditation. Please include qualifications of staff. | | Course leader is a Lead Teacher and SPC for the IOP.  Materials will be predominantly based on the IOP validated TSST resources. Any non-IoP materials will be quality assured by Dr Pat Thompson, Physics SLE. The TS will monitor and quality assure the experience that each participant receives to ensure equity of experience. The Teaching School itself works in collaboration with the other Leicester City teaching schools and will use the teaching school peer review framework for quality assurance.  On completion of the programme, participants will receive certification with CIMT combined with the possibility of Masters credits. We will establish protocol to follow the progress of TSST graduates in their career in order to look at the long term impact of the TSST on teacher career progression and student outcomes. | | **Individualisation for Participants** | Mention any separate routes possible, and how those routes are decided. | | Pre-session diagnostic testing via the IOP TSST platform will enable the course leader to have a clear idea of the specific content needed in order to allow content to be highly personalised, if required, based on the small cohort size of five. | | **Course Evaluation Mechanism** | Mention evaluation by participants, or external body, if you intend to publish survey results etc. | | All aspects of the TSST will be specifically evaluated, using the Teaching School evaluation process. The Teaching School itself reports evaluation data to the DfE. In addition to this, the Teaching School itself works in collaboration with the other Leicester City teaching schools and will use the teaching school peer review framework for quality assurance. | | **Lifelong Learning of Participants** | The TSST courses are inevitably of limited duration. Explain how participants are enabled to acquire the skills for autonomous learning beyond the course itself. | | At the beginning of the course, participants will be given access to key websites for the independent study/pre-reading in order to establish a culture of autonomous learning. Participants will be encouraged to engage with the IoP throughout the course. We have factored in a process for following progress of TSST graduates in their career and will use this ongoing evaluation as a mechanism of keeping graduates informed of future developments. Social media such as twitter and a WhatsApp group for the cohort will provide a further opportunity for ongoing CPD and sharing of current Physics research. | |  |  |  |  |  |  |  |  |